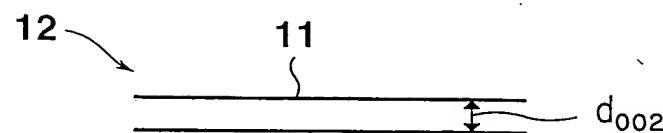


## FIG. 1

(a)



(b)

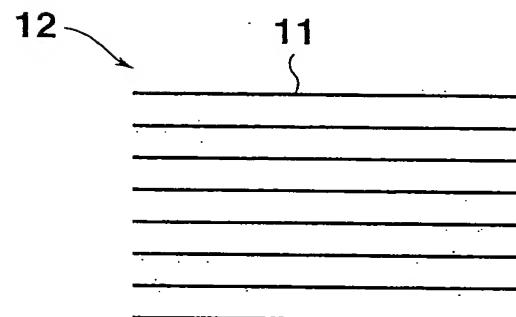
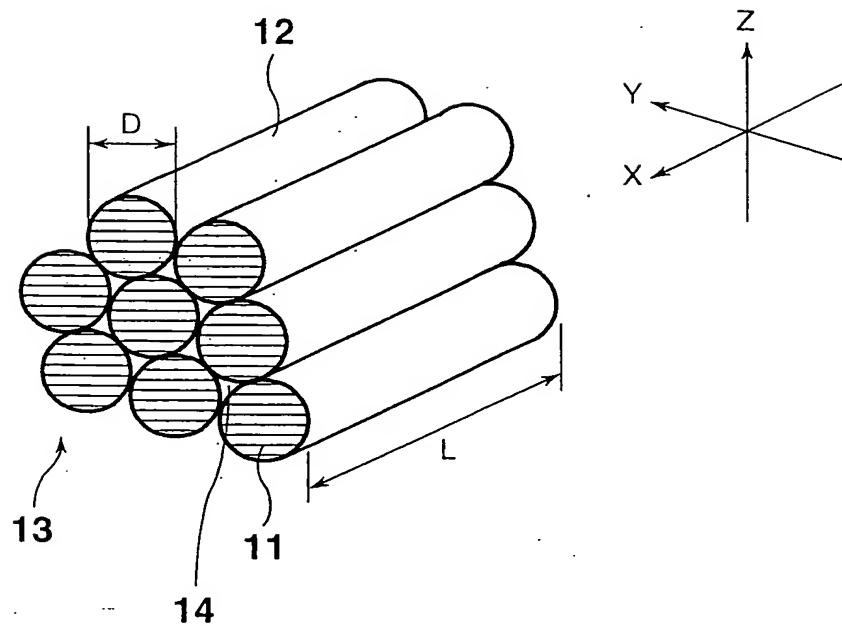


FIG. 2

(a)



(b)

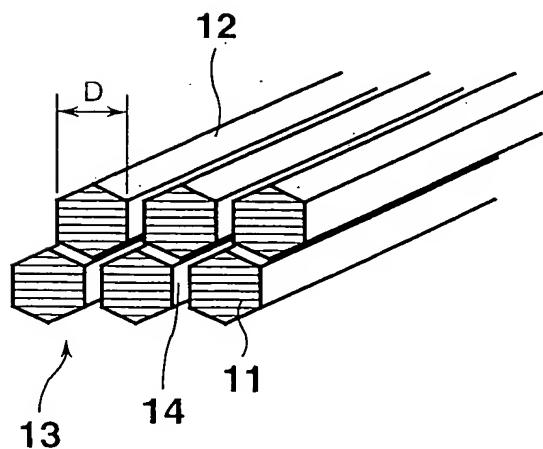


FIG. 3

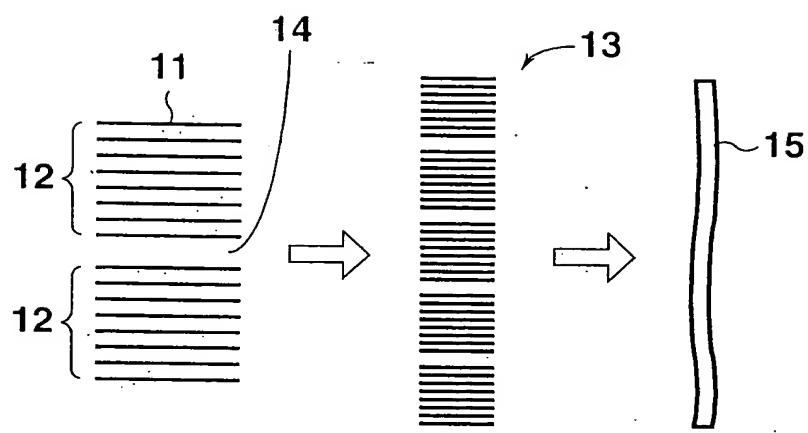


FIG. 4

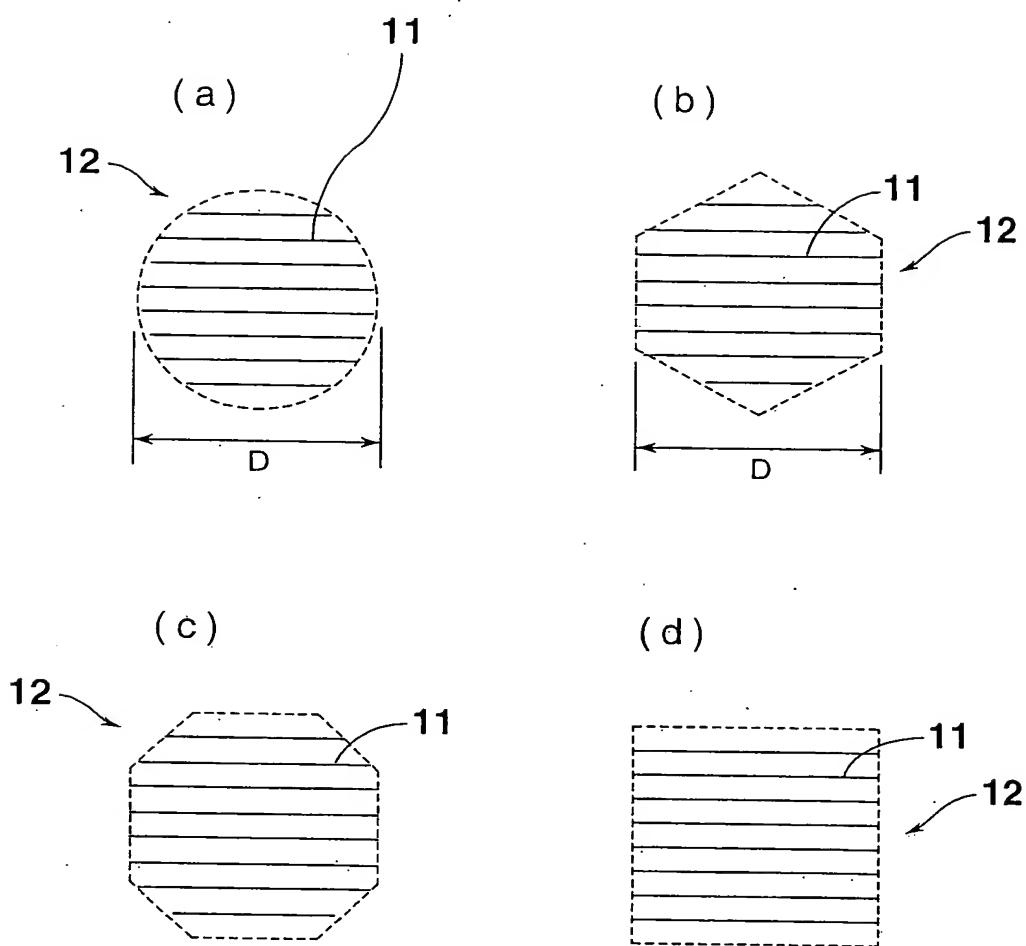
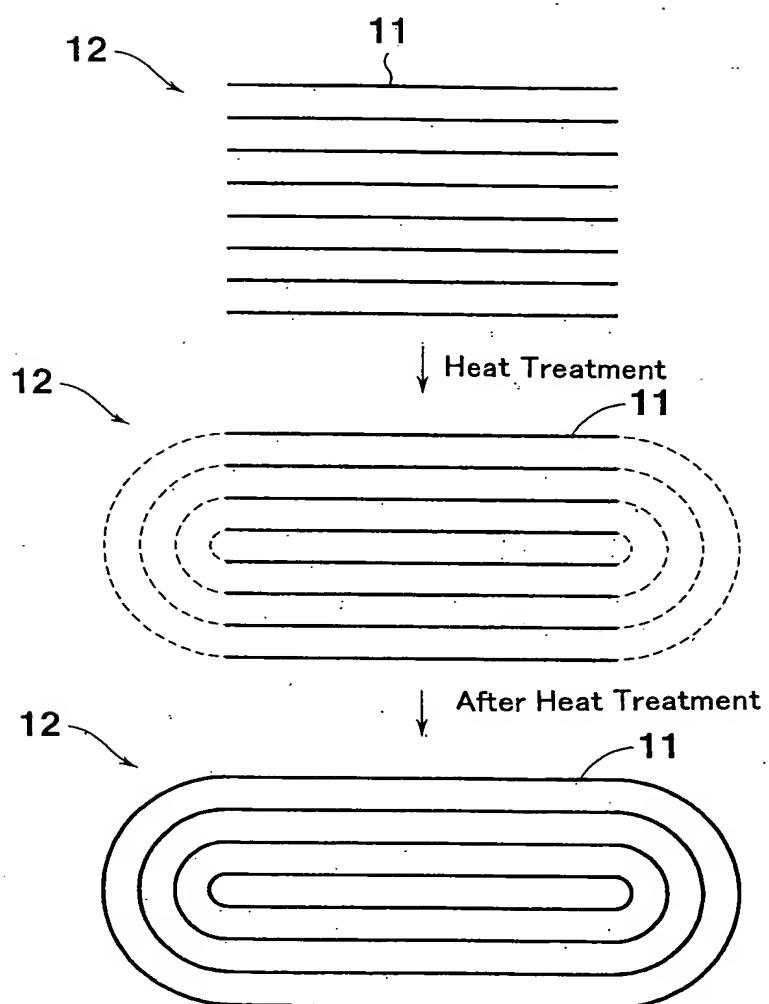


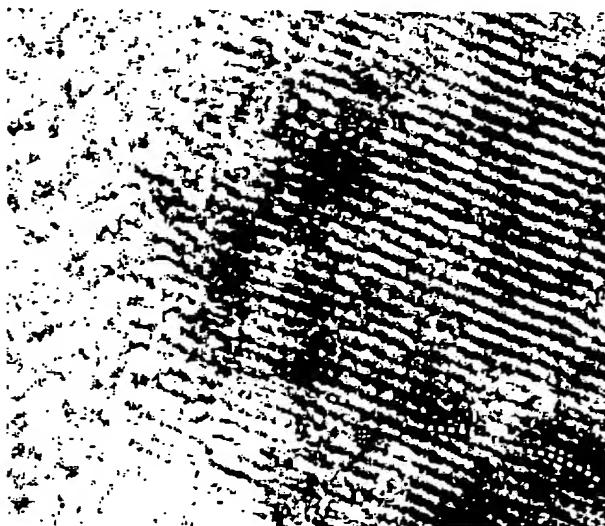
FIG. 5



# FIG. 6

High Resolution Transmission Electron Microscope  
Photographs of Carbon Nano-Fibrous Rod  
(a) As-Prepared State  
(b) 2800° Heat-Treated State

(a)



(b)



10nm

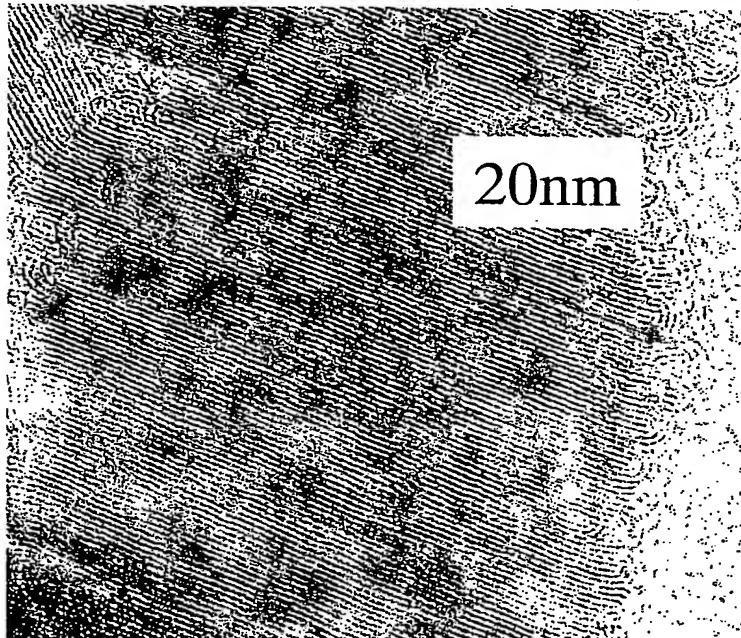
6/50

**FIG. 7**

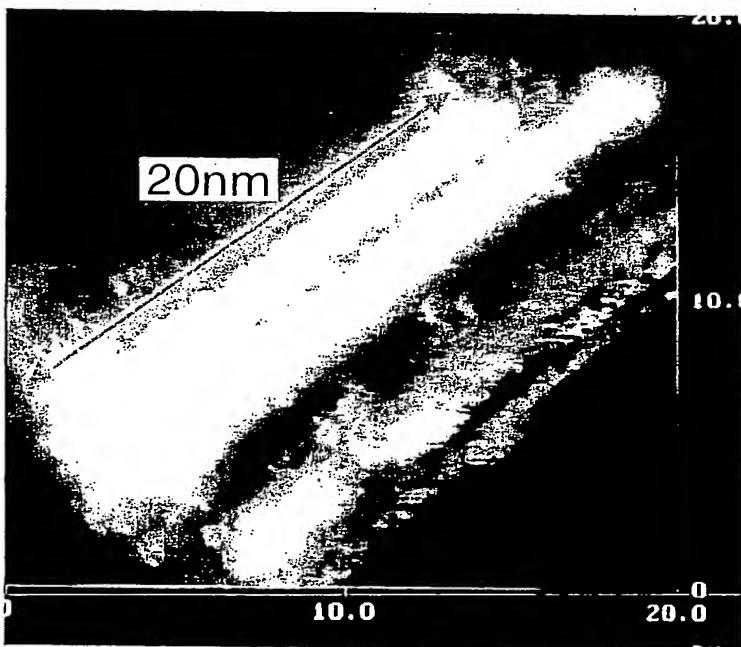
High Resolution Electron Microscope Photographs of  
Carbon Nano-Fibrous Rod

(a) High Resolution Transmission Electron Microscope  
Photograph  
(b) Scanning Tunneling Electron Microscope Photograph

(a)



(b)



**FIG. 8**

Scanning Tunneling Electron Microscope Photograph of  
Carbon Nano-Fibrous Rod

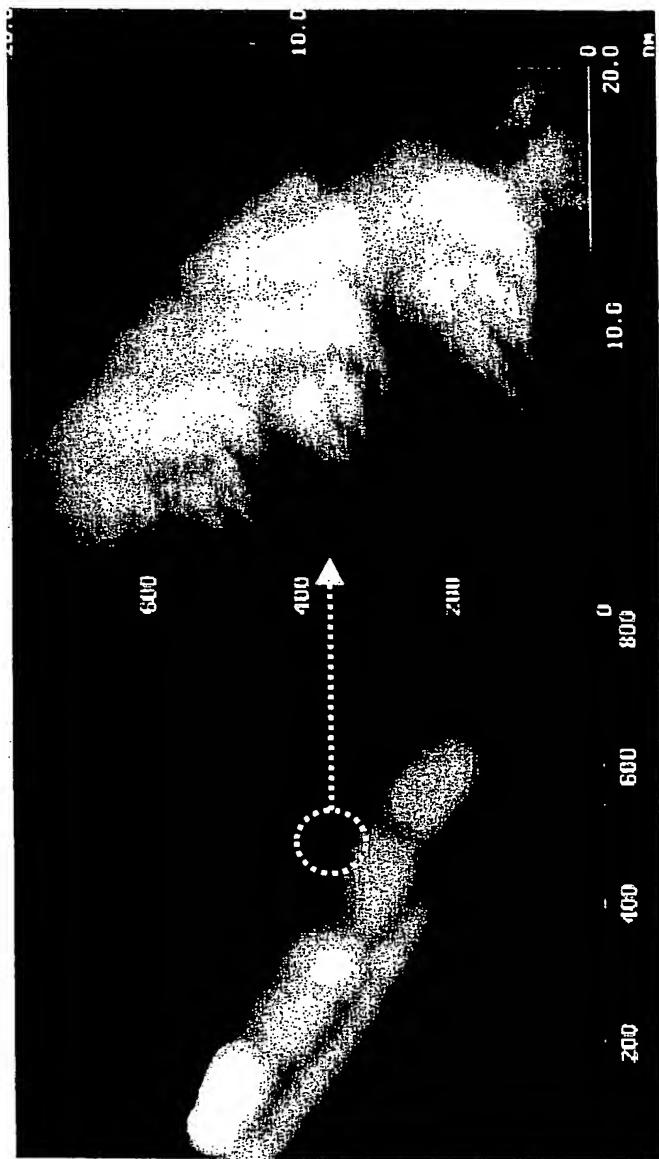
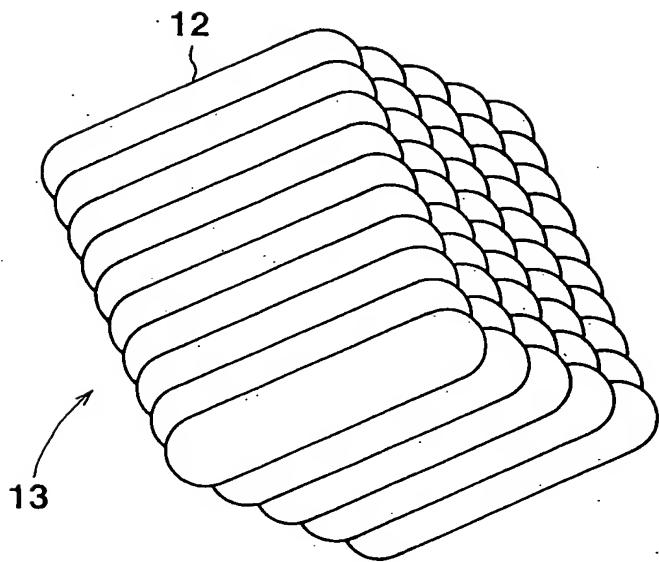


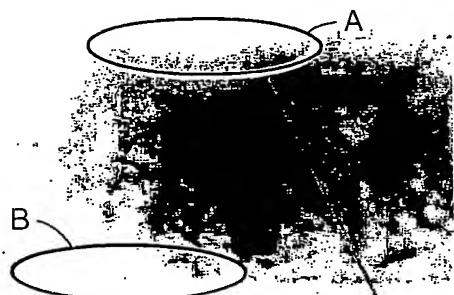
FIG. 9



**FIG. 10**

High Resolution Transmission Electron Microscope  
Photographs of Fibrous Nanocarbon of Columnar Structure

( a )



100nm  
X 50,000

( b )

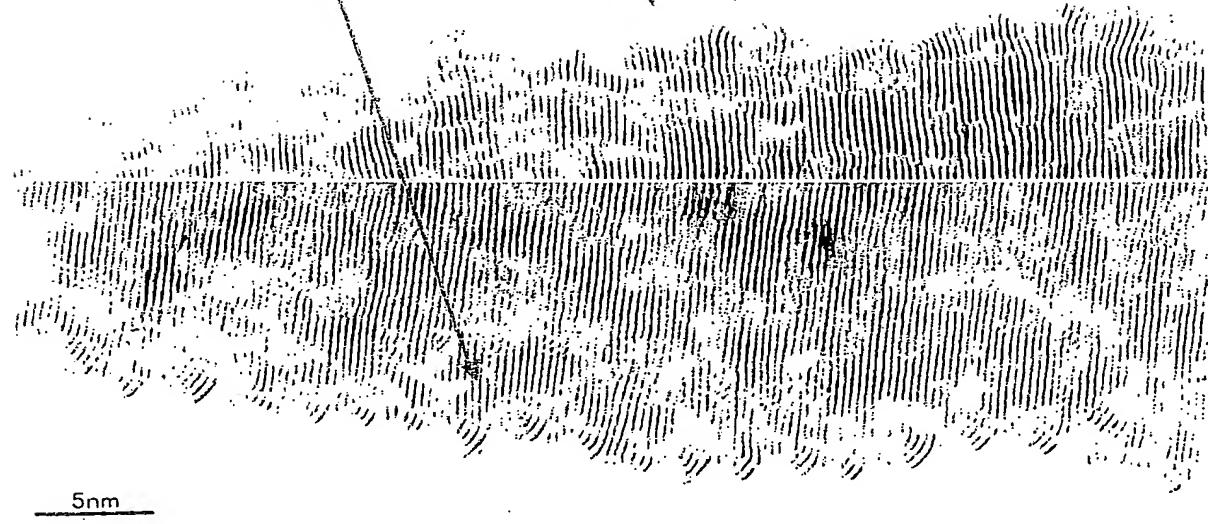
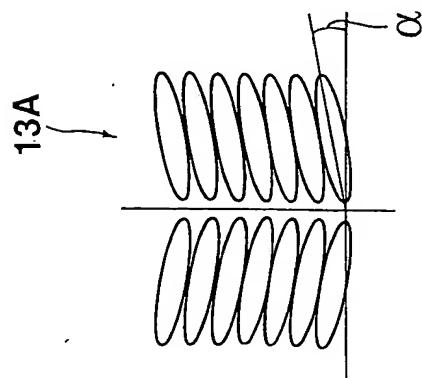
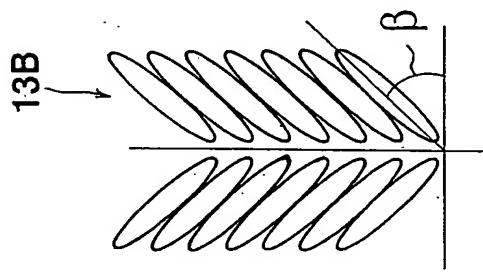


FIG. 11

(a)



(b)



(c)

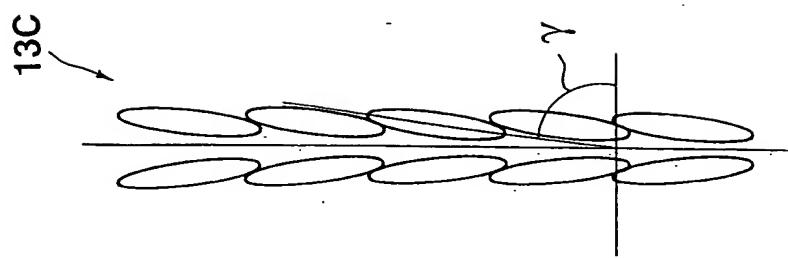


FIG. 12

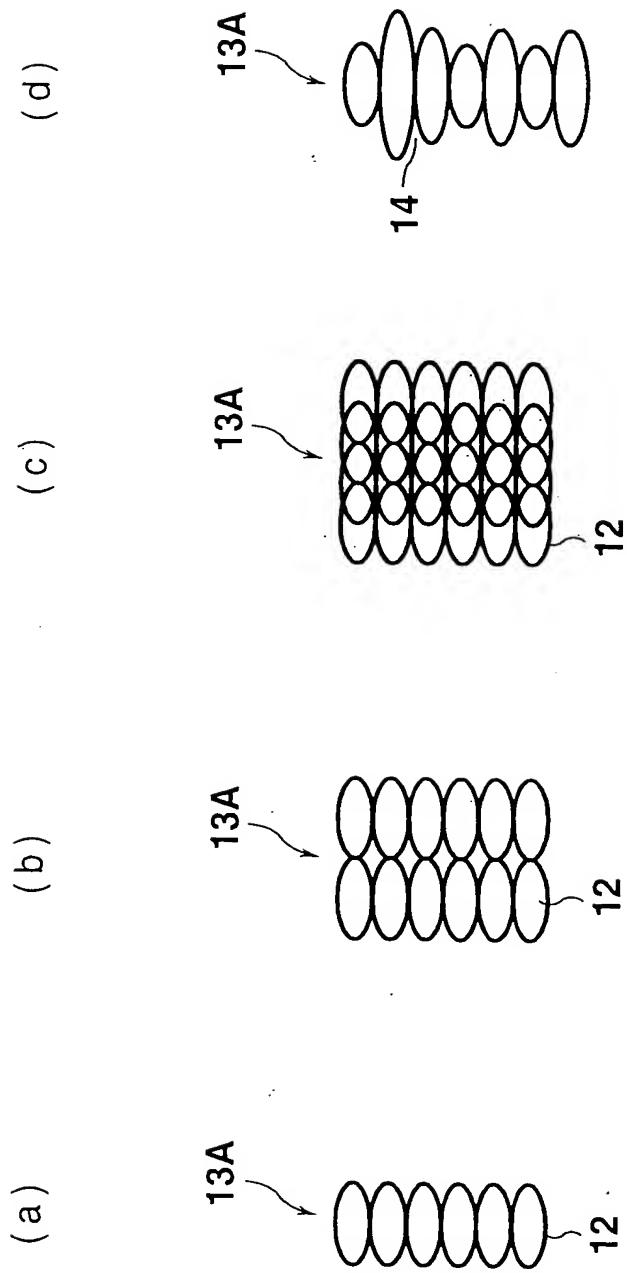


FIG. 13

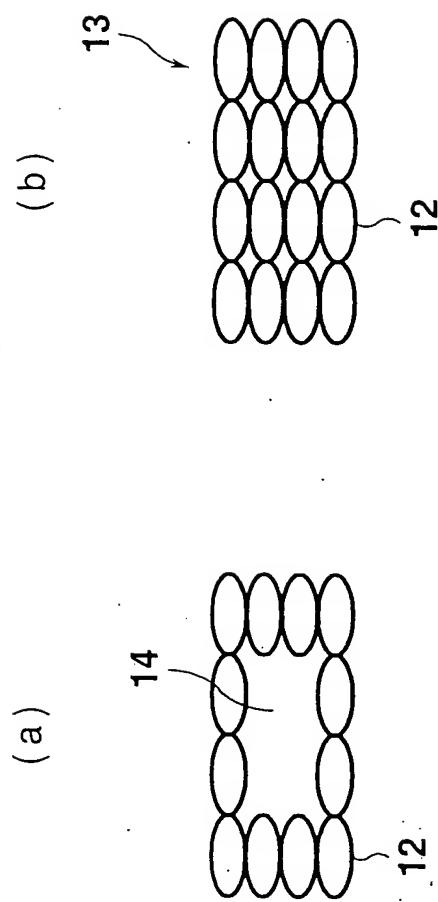
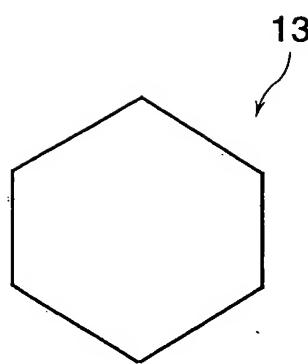
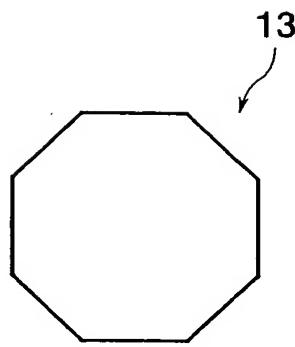


FIG. 14

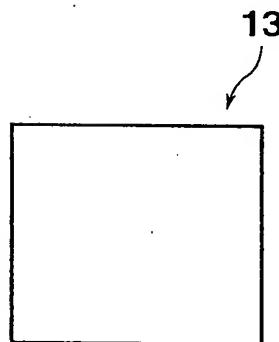
( a )



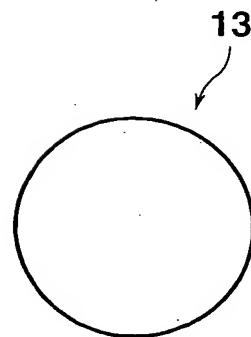
( b )



( c )



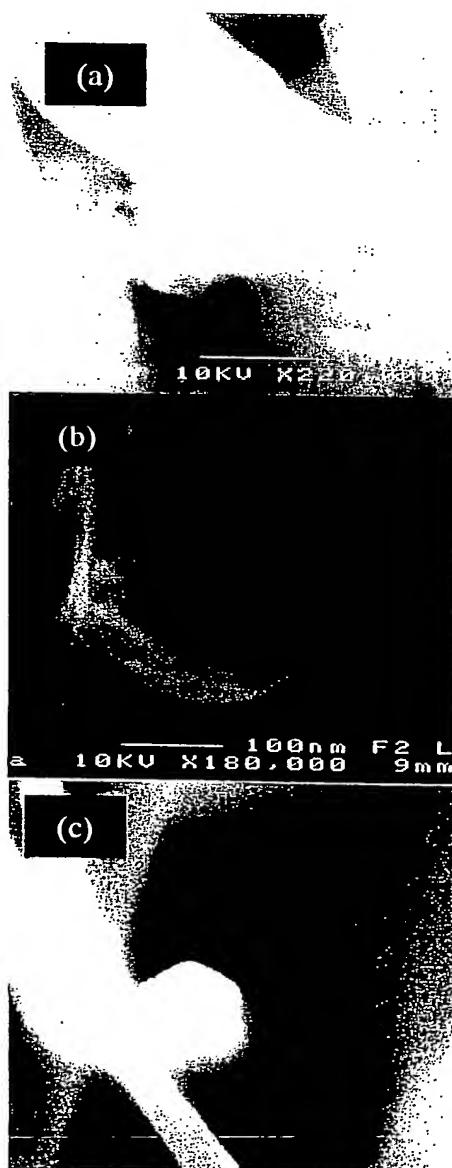
( d )



# FIG. 15

High Resolution Scanning Electron Microscope  
Photographs of Fibrous Nanocarbon

- (a) Fibrous Nanocarbon of Columnar Structure
- (b) Fibrous Nanocarbon of Feather Structure
- (c) Fibrous Nanocarbon of Tubular Structure



# FIG. 16

High Resolution Scanning Electron Microscope  
Photographs of Fibrous Nanocarbon  
(a) Fibrous Nanocarbon of Columnar Structure  
(b) Fibrous Nanocarbon of Feather Structure  
(c) Fibrous Nanocarbon of Tubular Structure

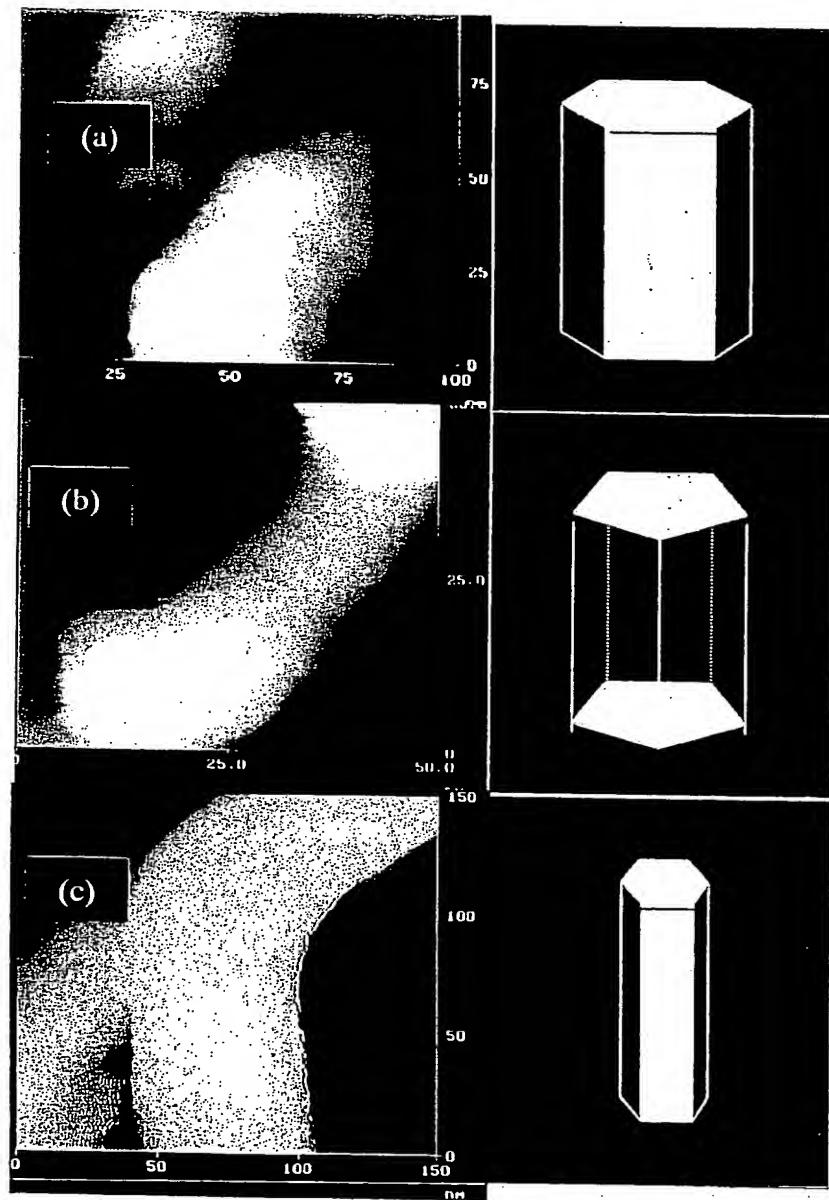
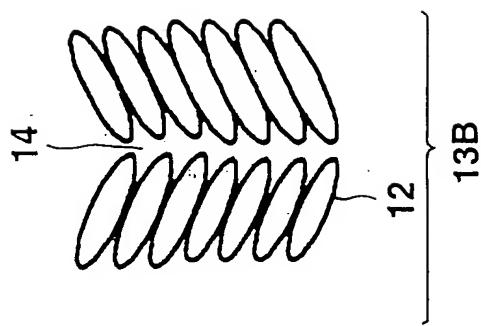
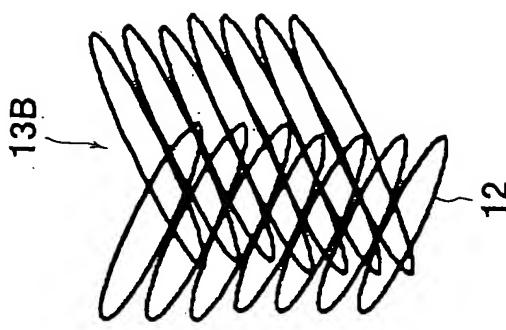


FIG. 17

(a)



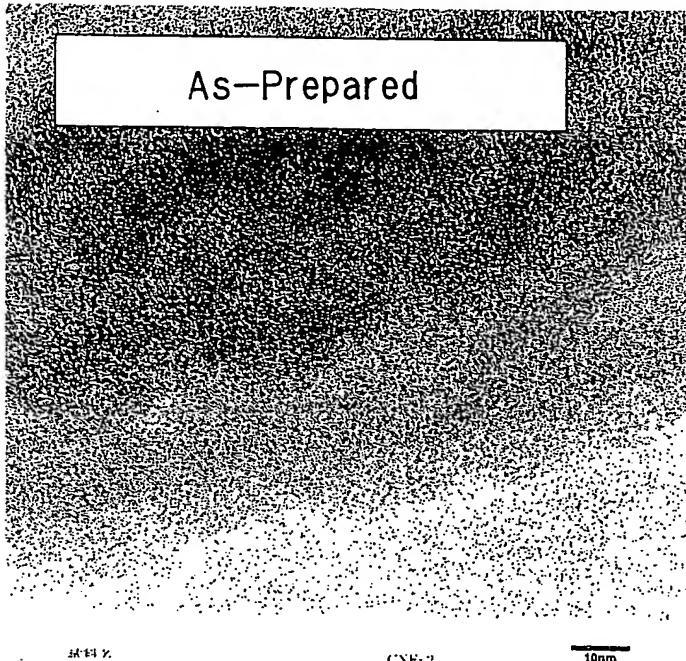
(b)



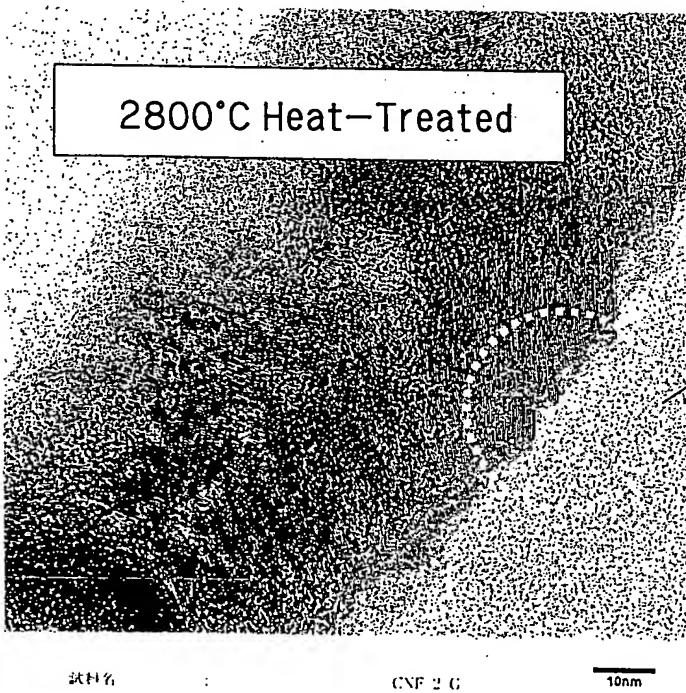
# FIG. 18

High Resolution Transmission Electron Microscope  
Photographs of Fibrous Nanocarbon of Feather Structure

(a)



(b)



(c)

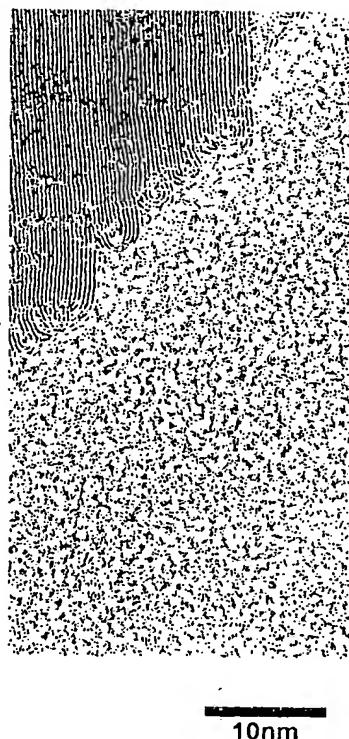


FIG. 19

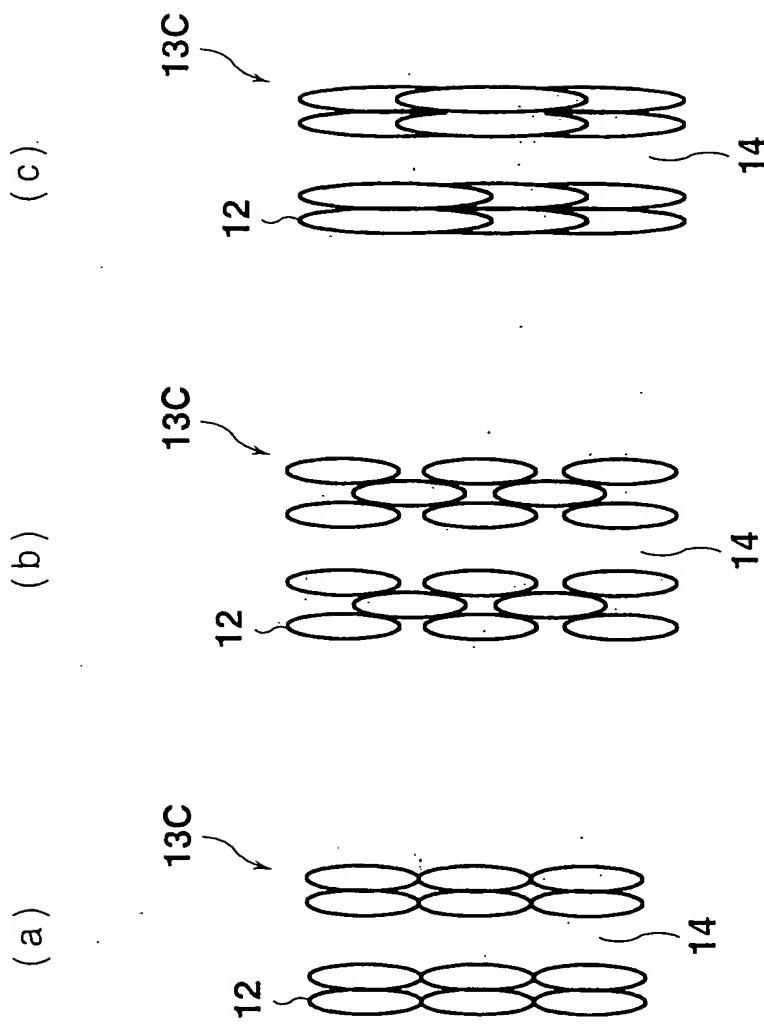
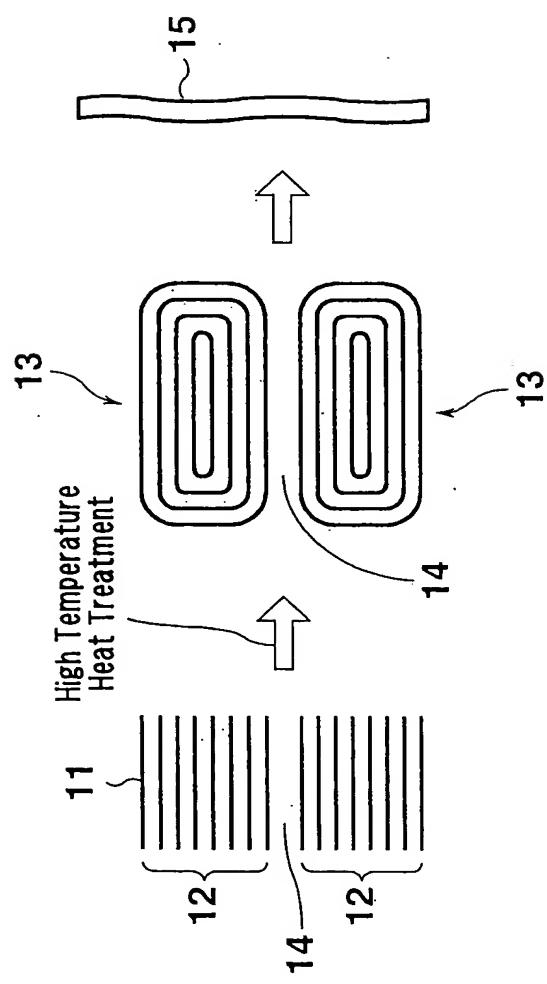


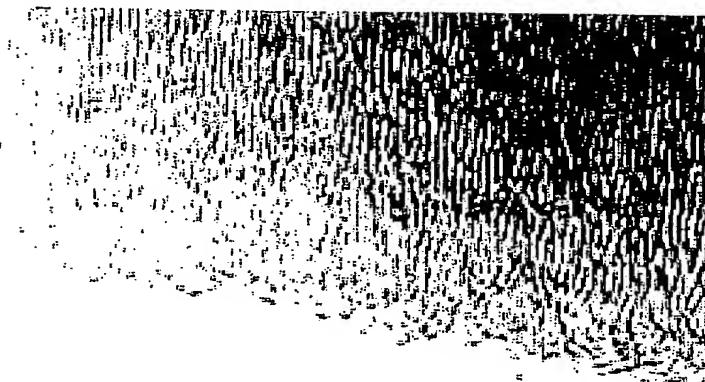
FIG. 20



**FIG. 21**

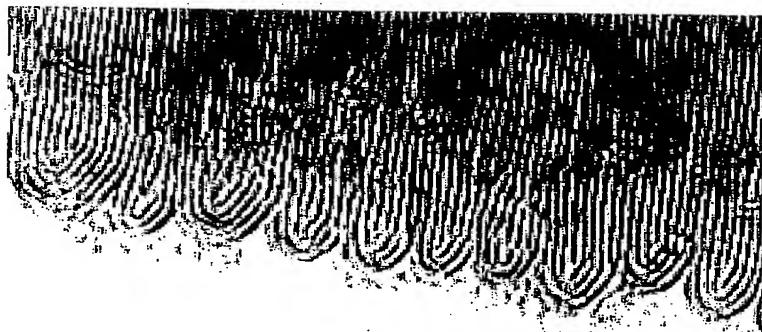
High Resolution Transmission Electron Microscope  
Photographs of Fibrous Nanocarbon of Columnar Structure

(a)



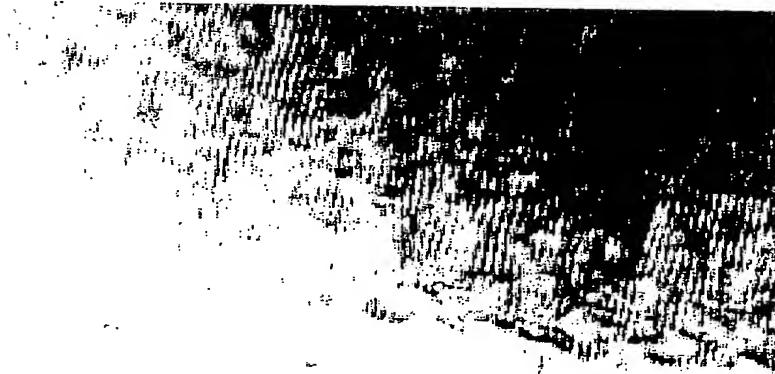
(-30 Degrees)

(b)



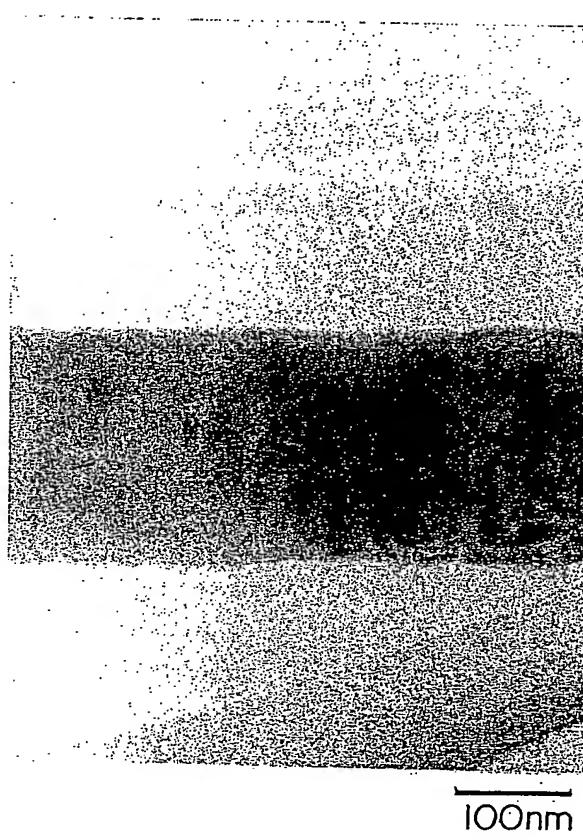
(0 Degrees)

(c)



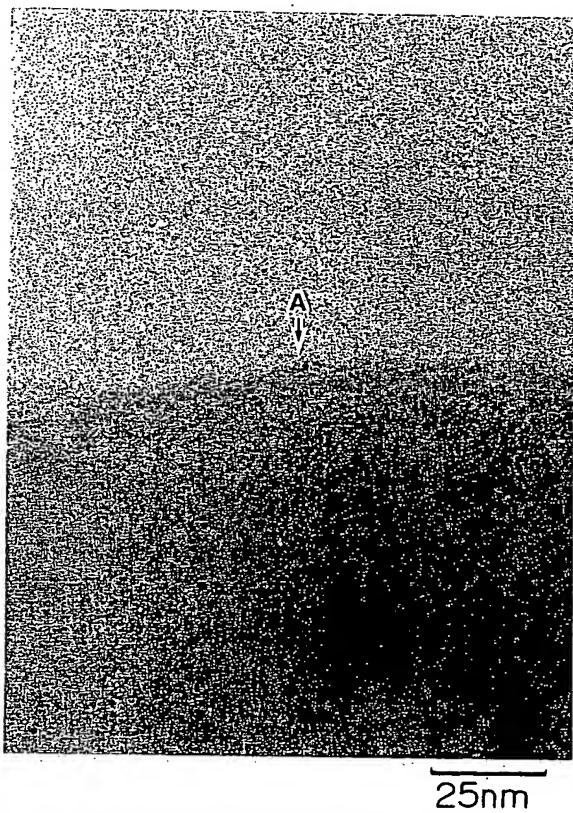
(+30 Degrees)

FIG. 22



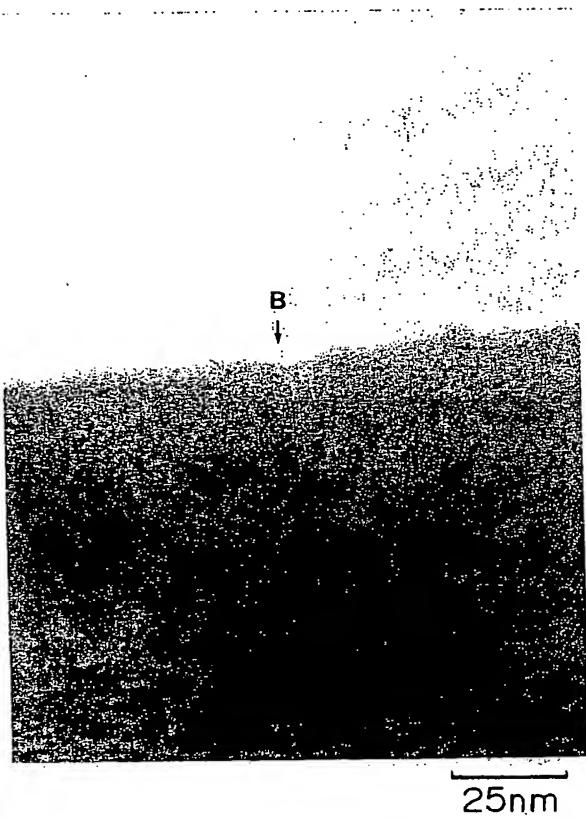
10/537151

FIG. 23



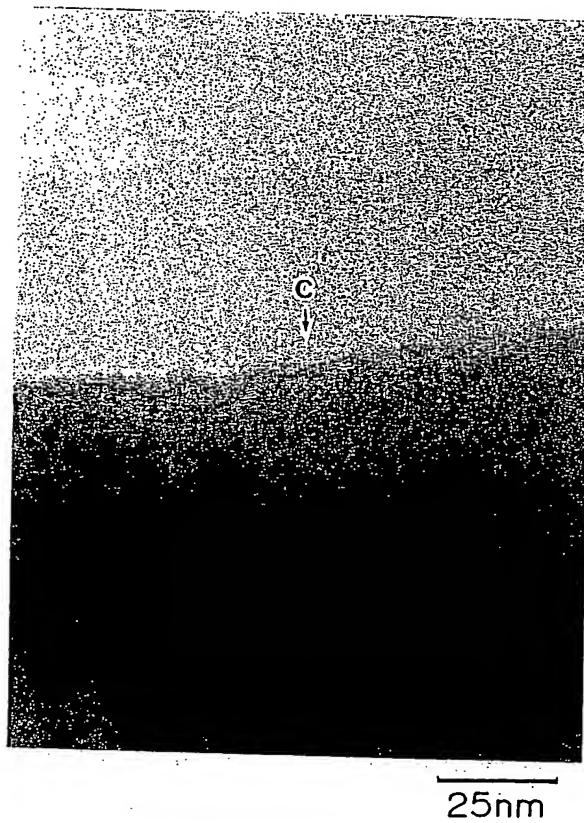
10/537151

FIG. 24



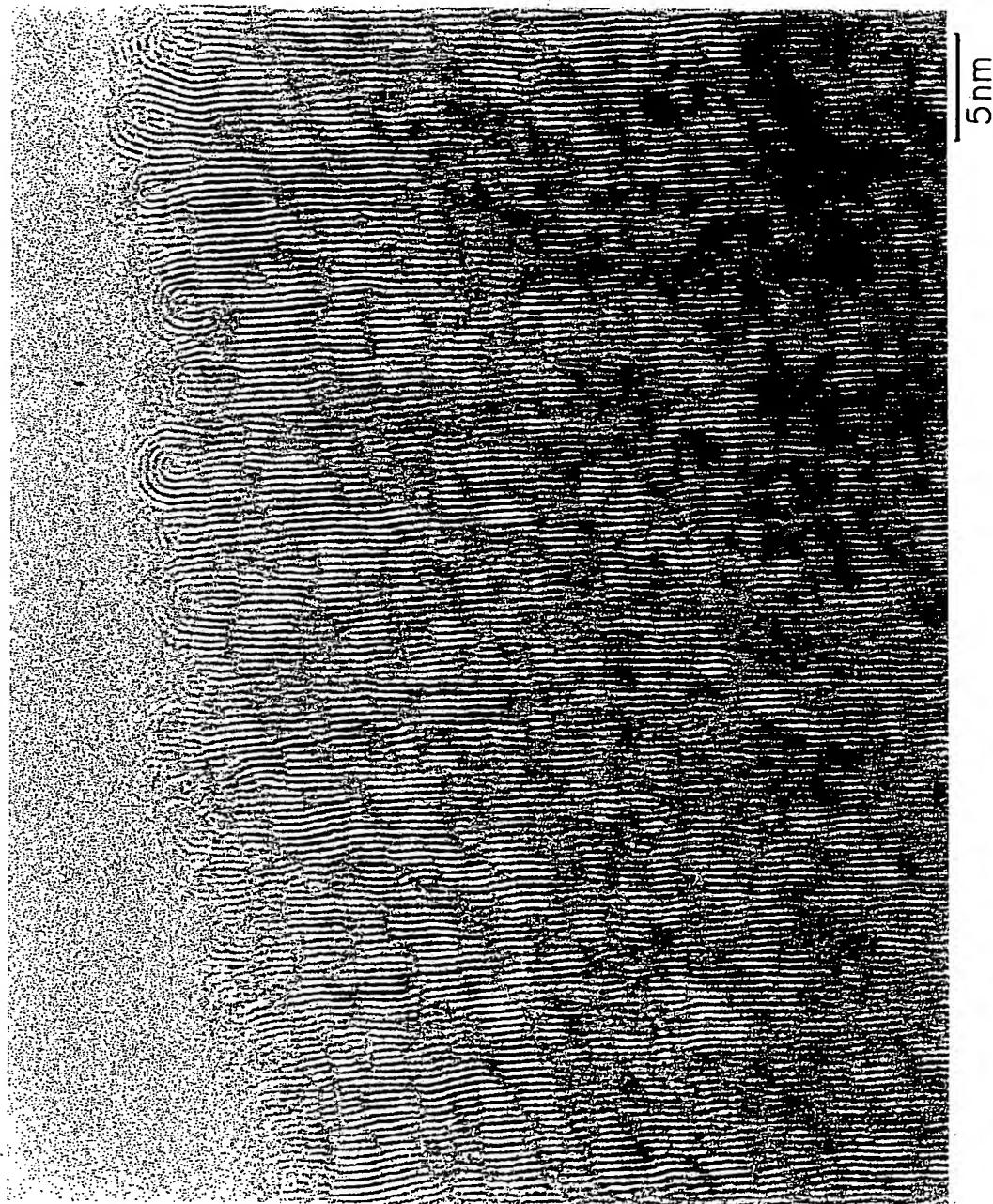
10/537151

FIG. 25



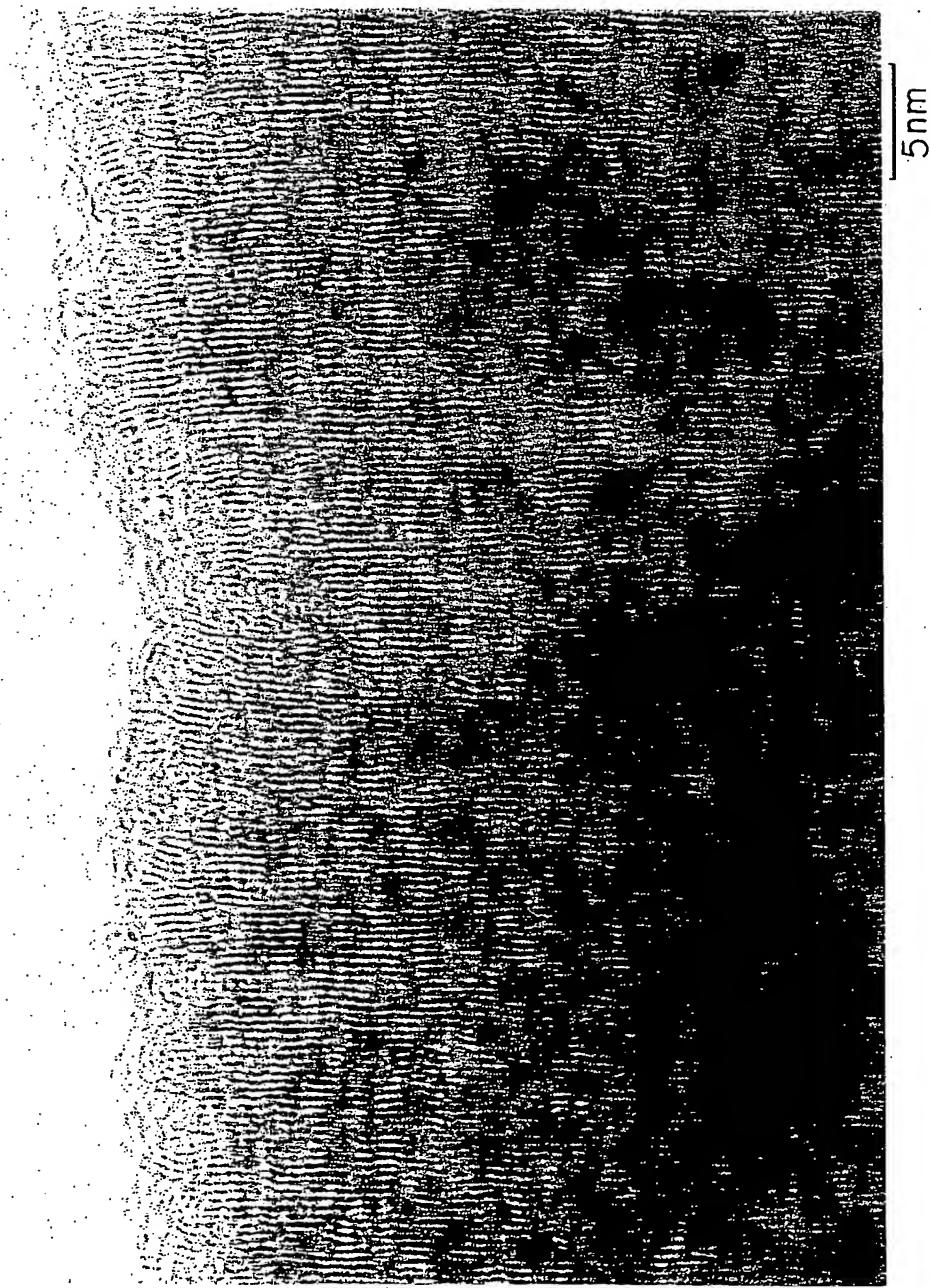
25/50

FIG. 26



10/537151

FIG. 27



10/537151

FIG. 28

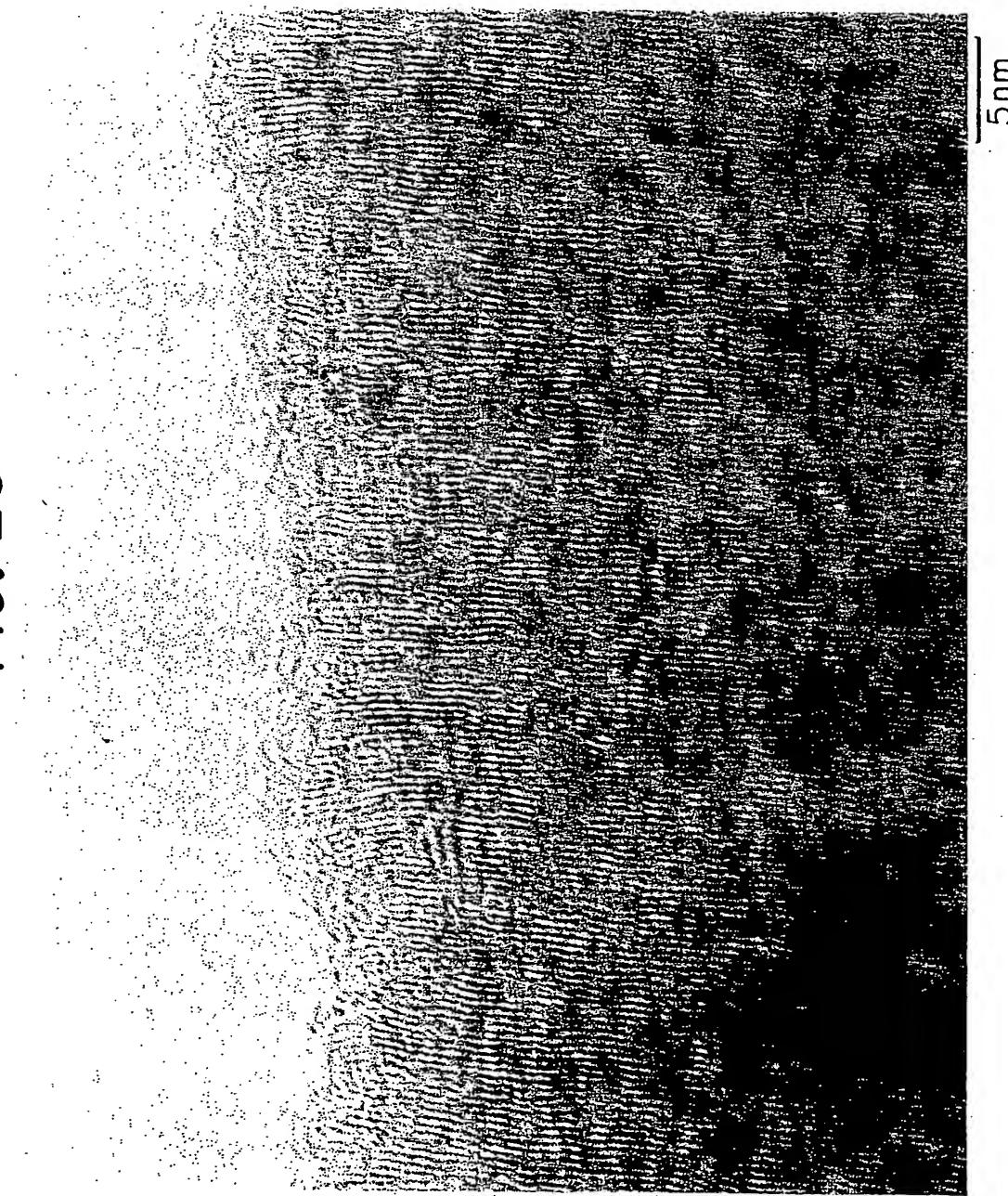


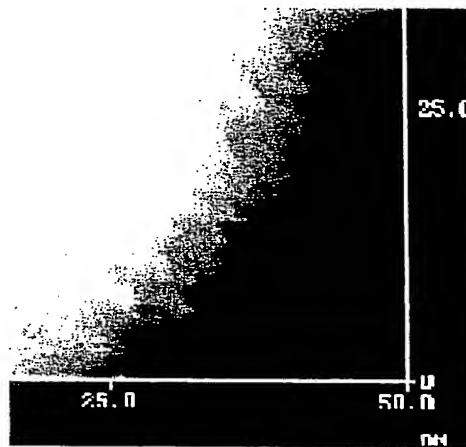
FIG. 29

High Resolution Scanning Electron Microscope  
Photographs of Fibrous Nanocarbon

- (a) Fibrous Nanocarbon of Columnar Structure
- (b) Fibrous Nanocarbon of Feather Structure
- (c) Fibrous Nanocarbon of Tubular Structure

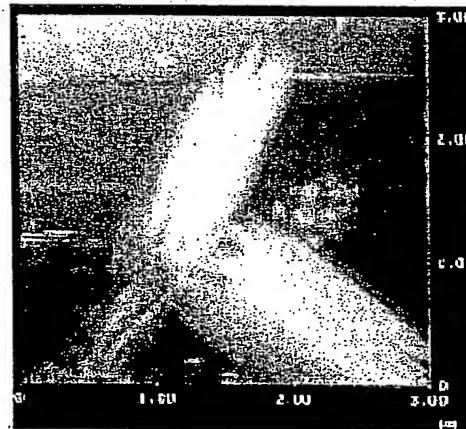
As-prepared

( a )



2800°C heat-treated

( b )



( c )

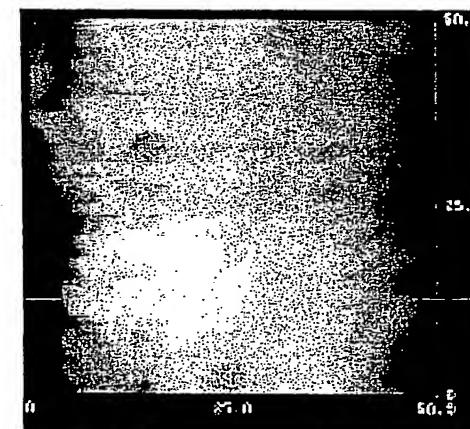
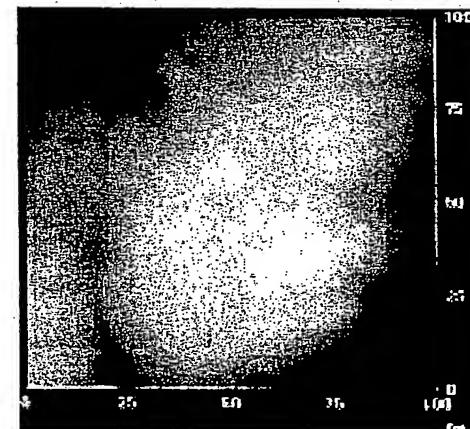
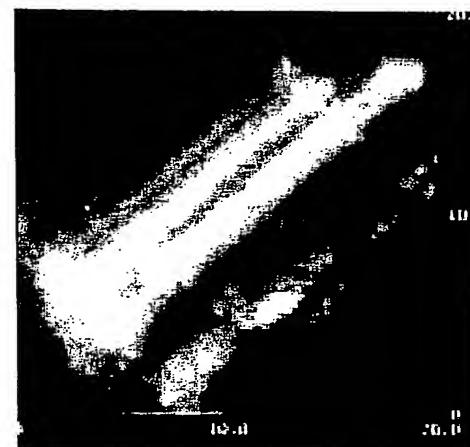
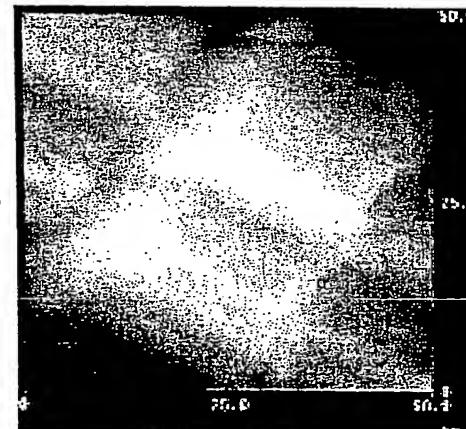


FIG. 30

High Resolution Transmission Electron Microscope  
Photographs and Raman Spectra of Fibrous Nanocarbon

( a ) ( b ) ( c )

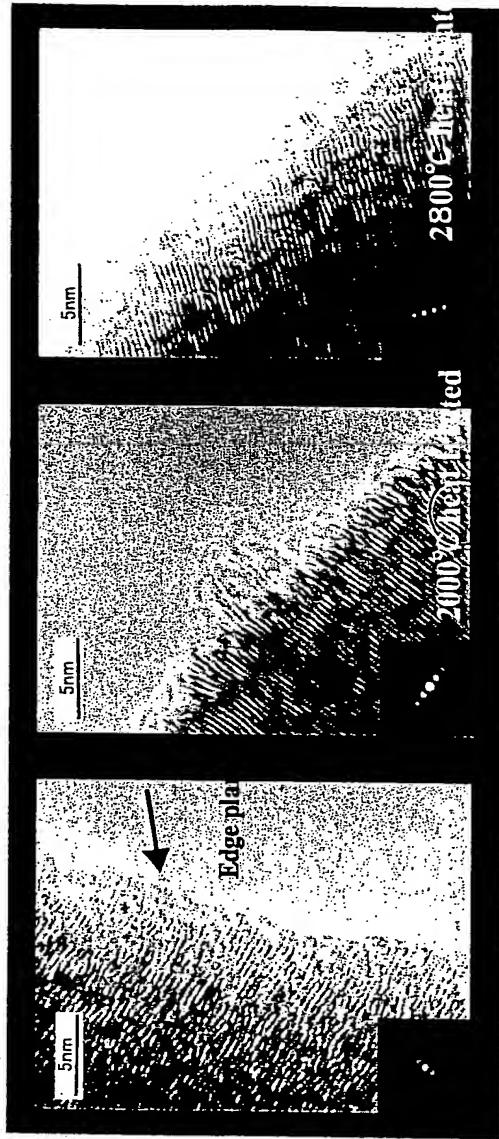


FIG. 31

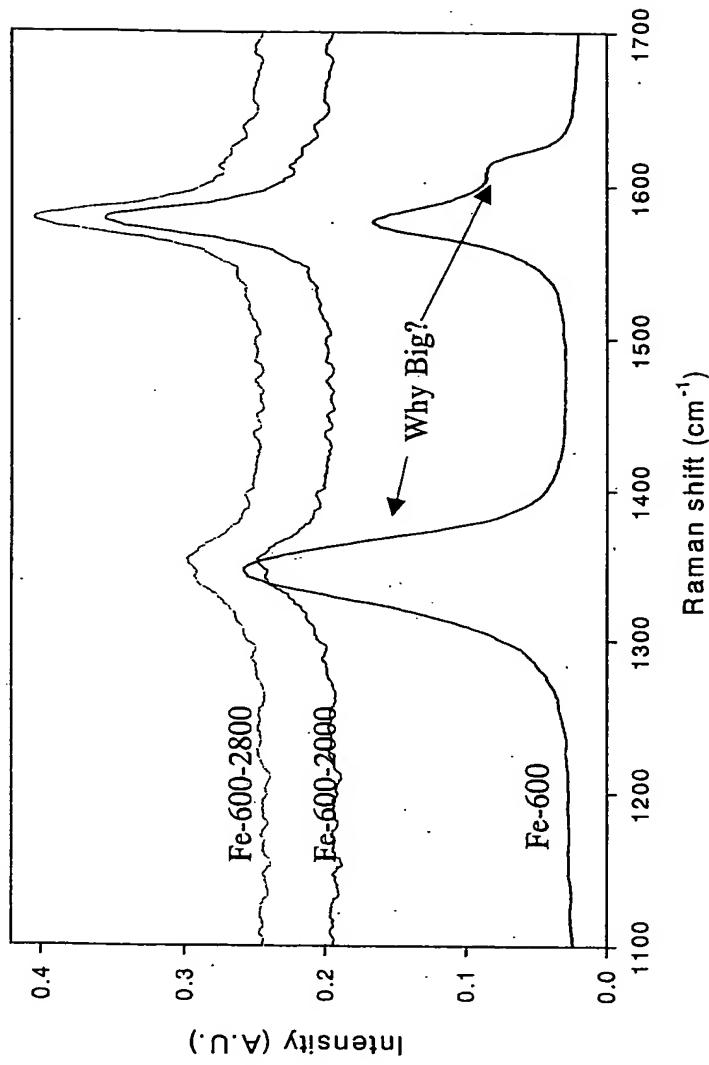


FIG. 32

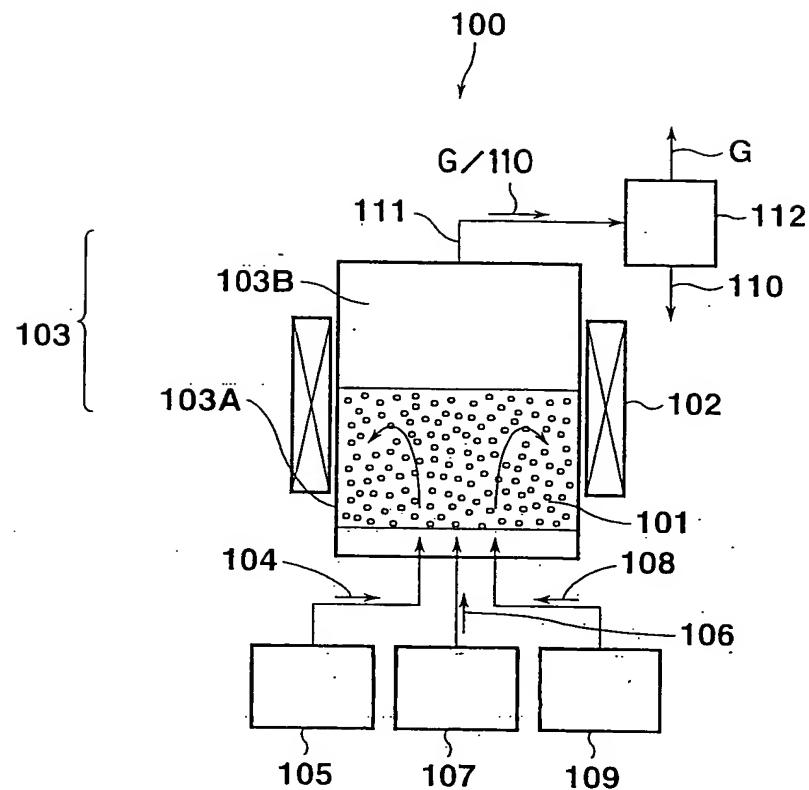


FIG. 33

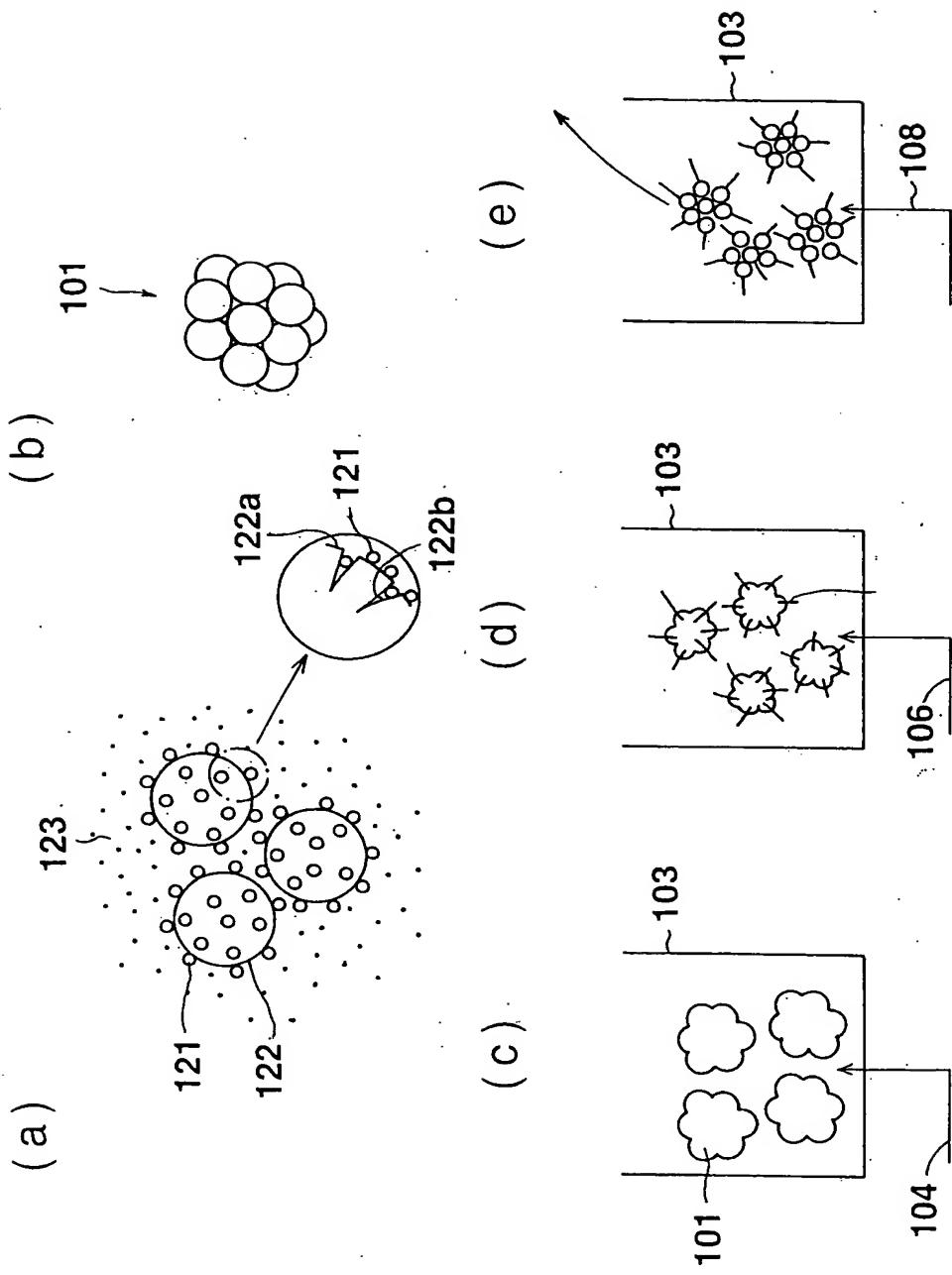


FIG. 34

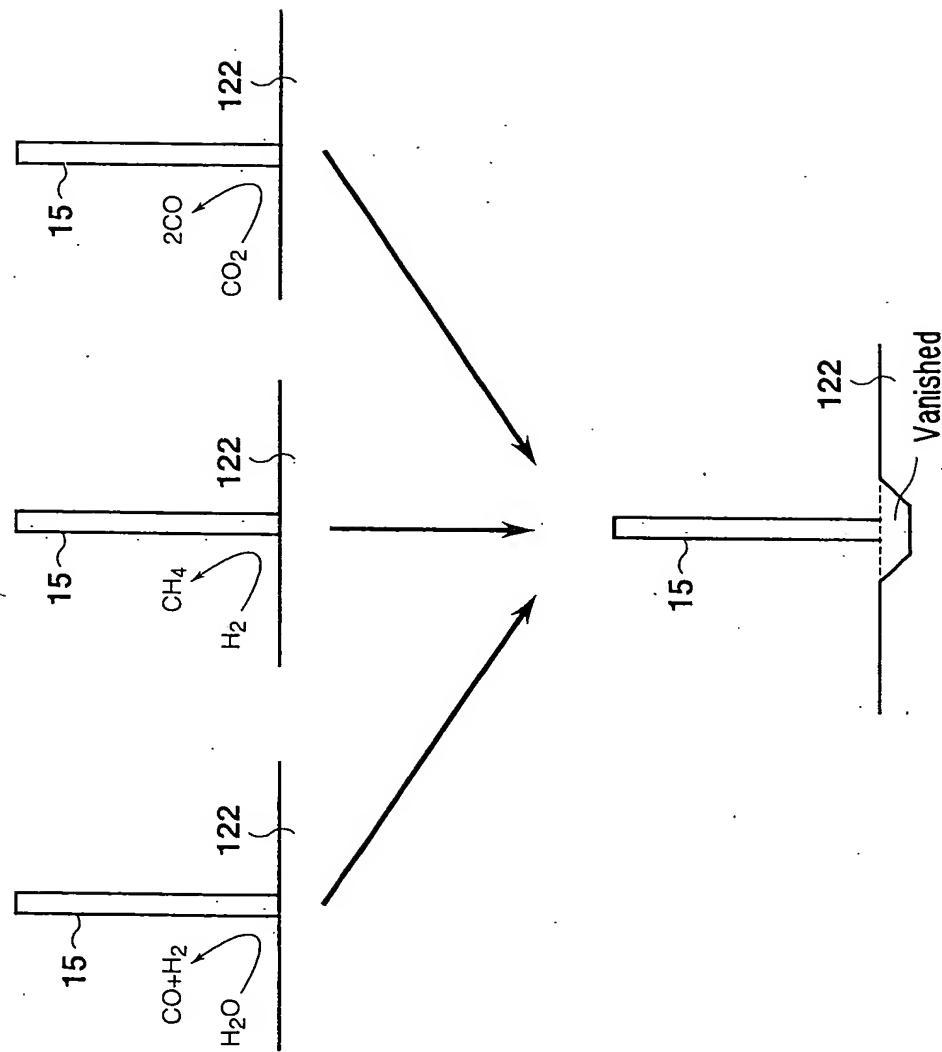


FIG. 35

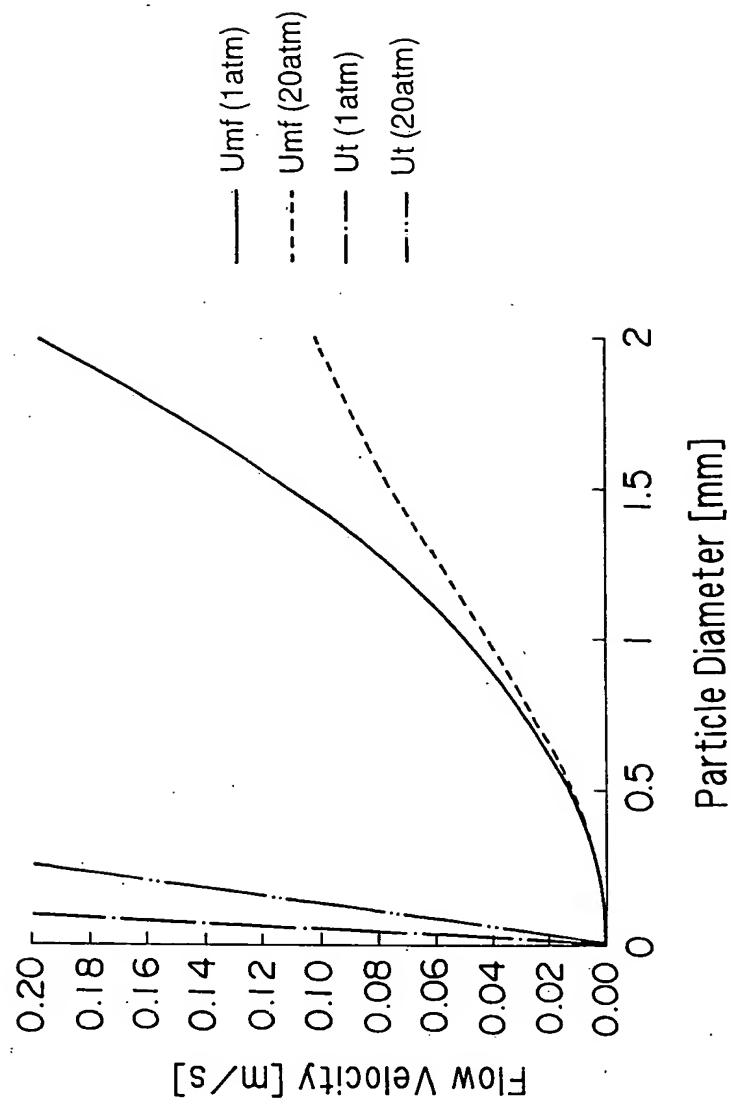


FIG. 36

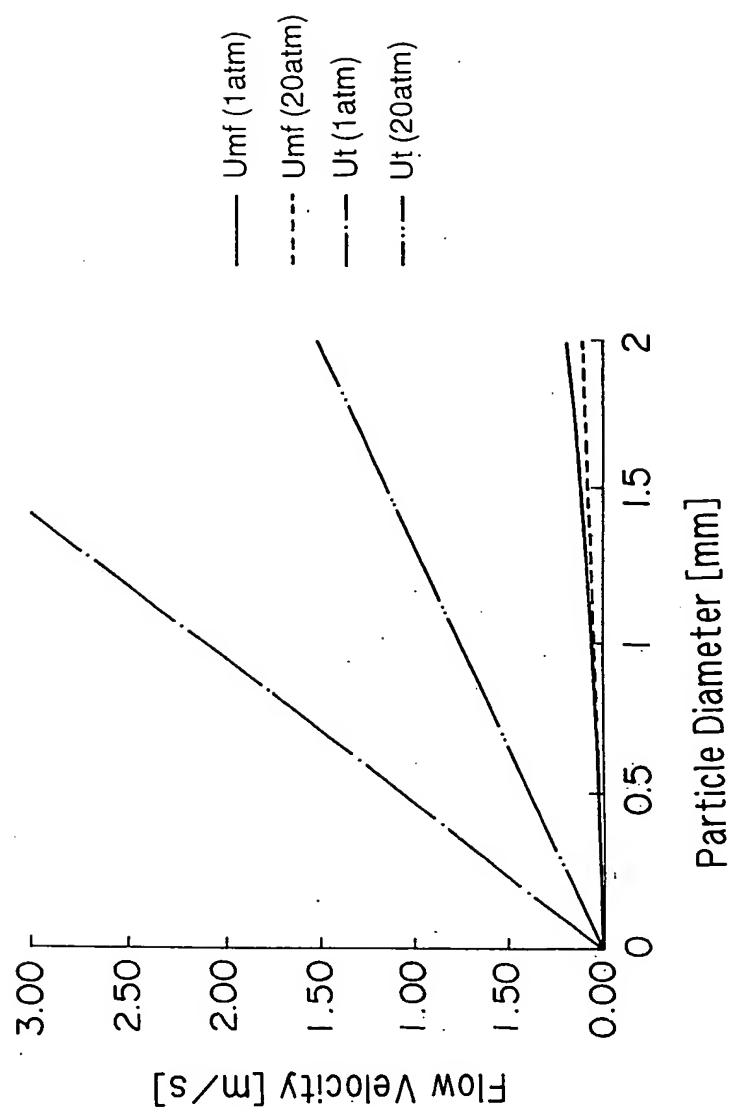


FIG. 37

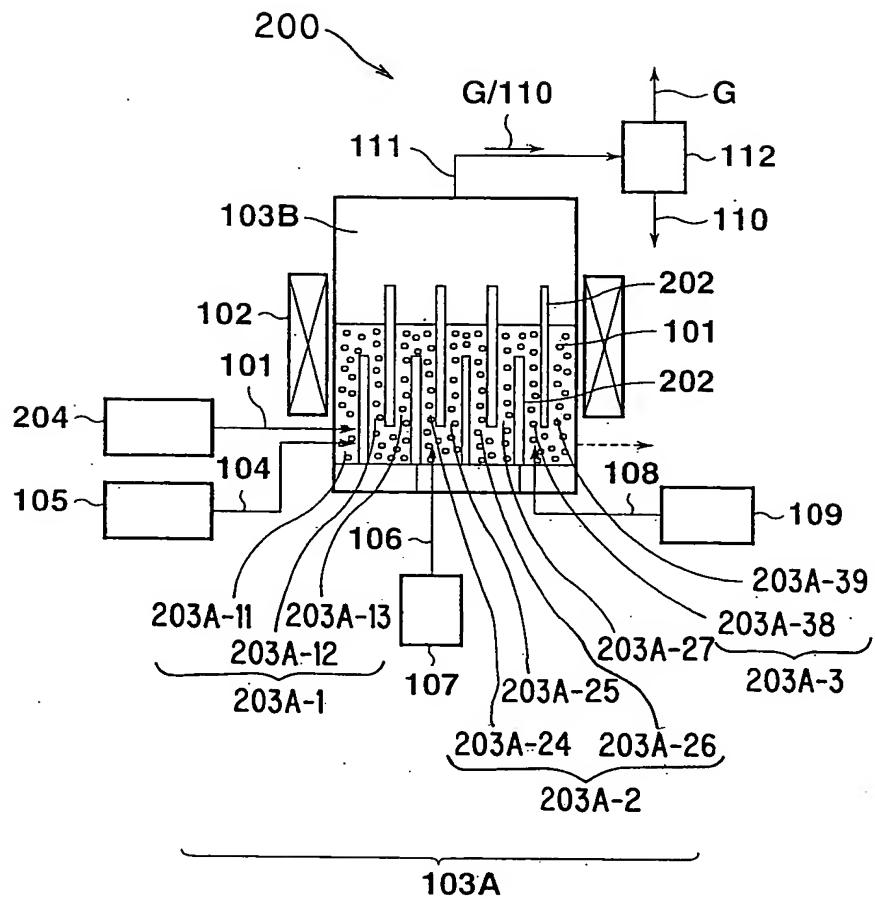


FIG. 38

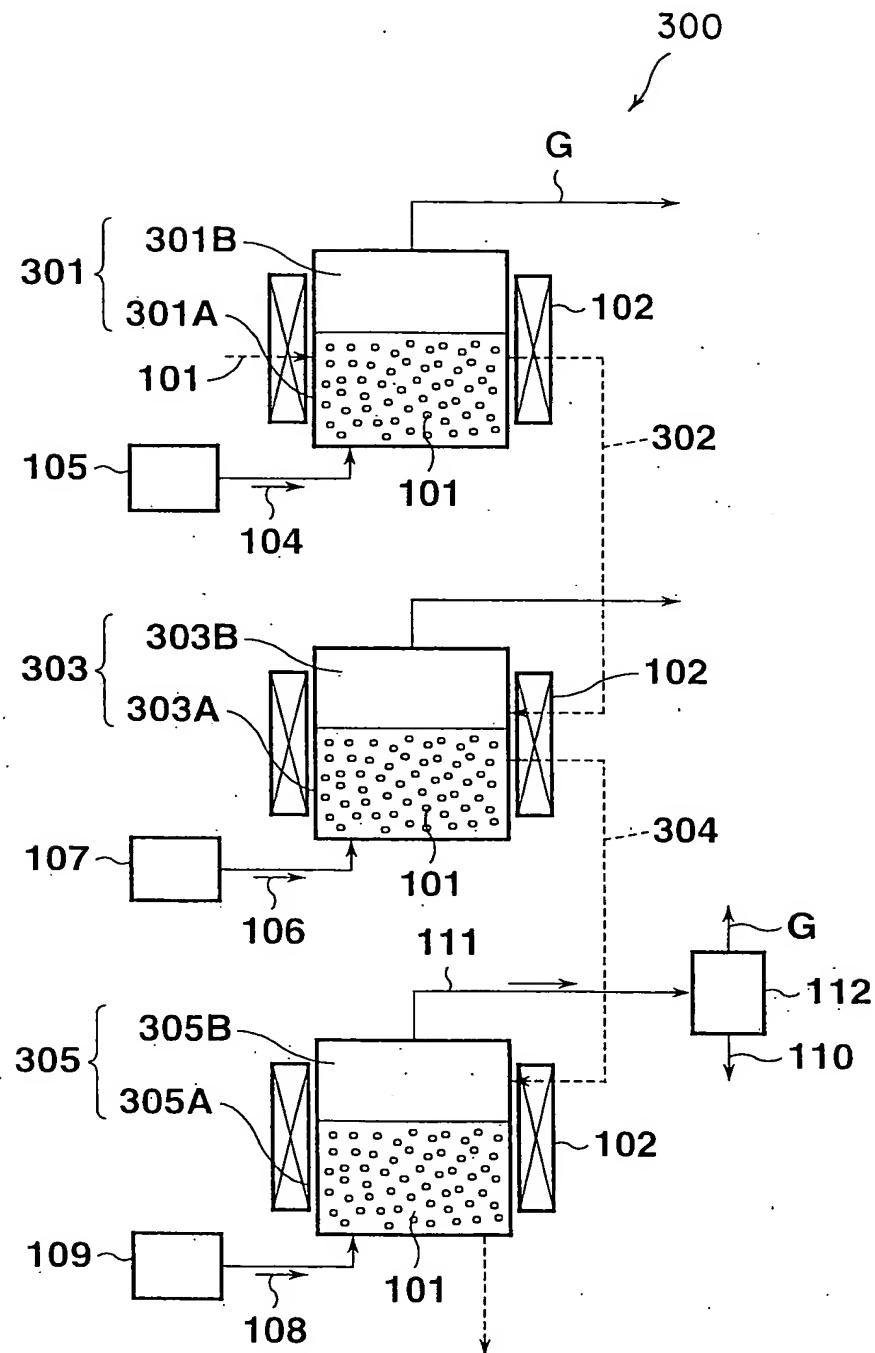


FIG. 39

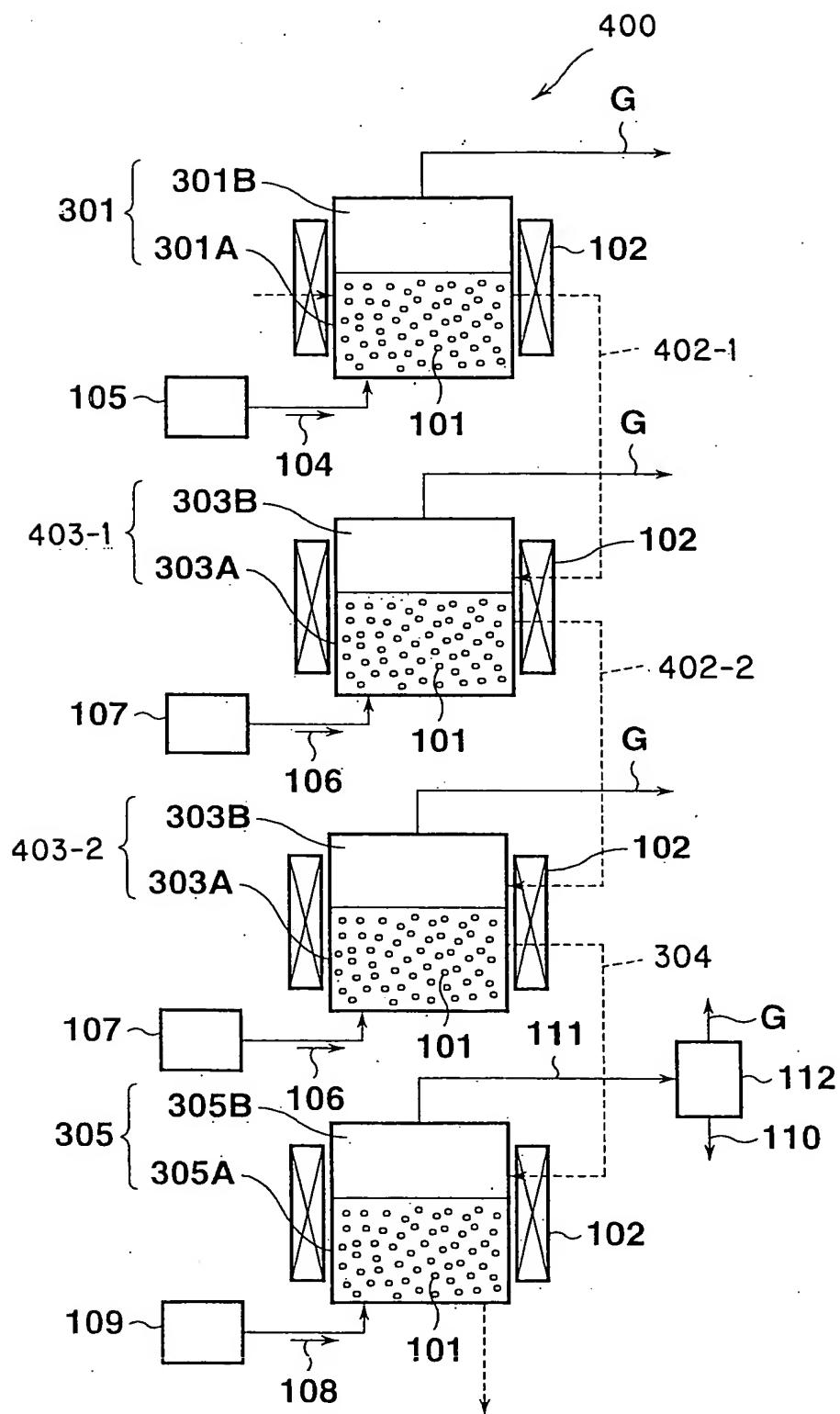


FIG. 40

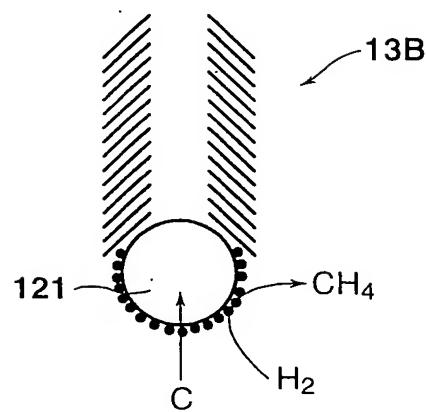


FIG. 41

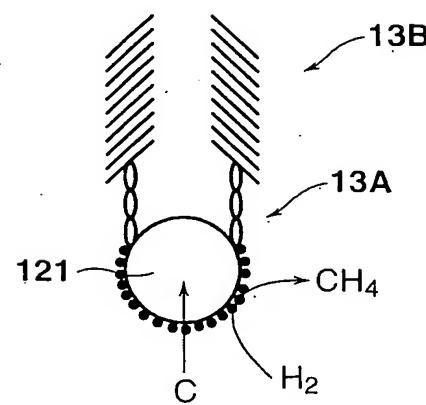


FIG. 42

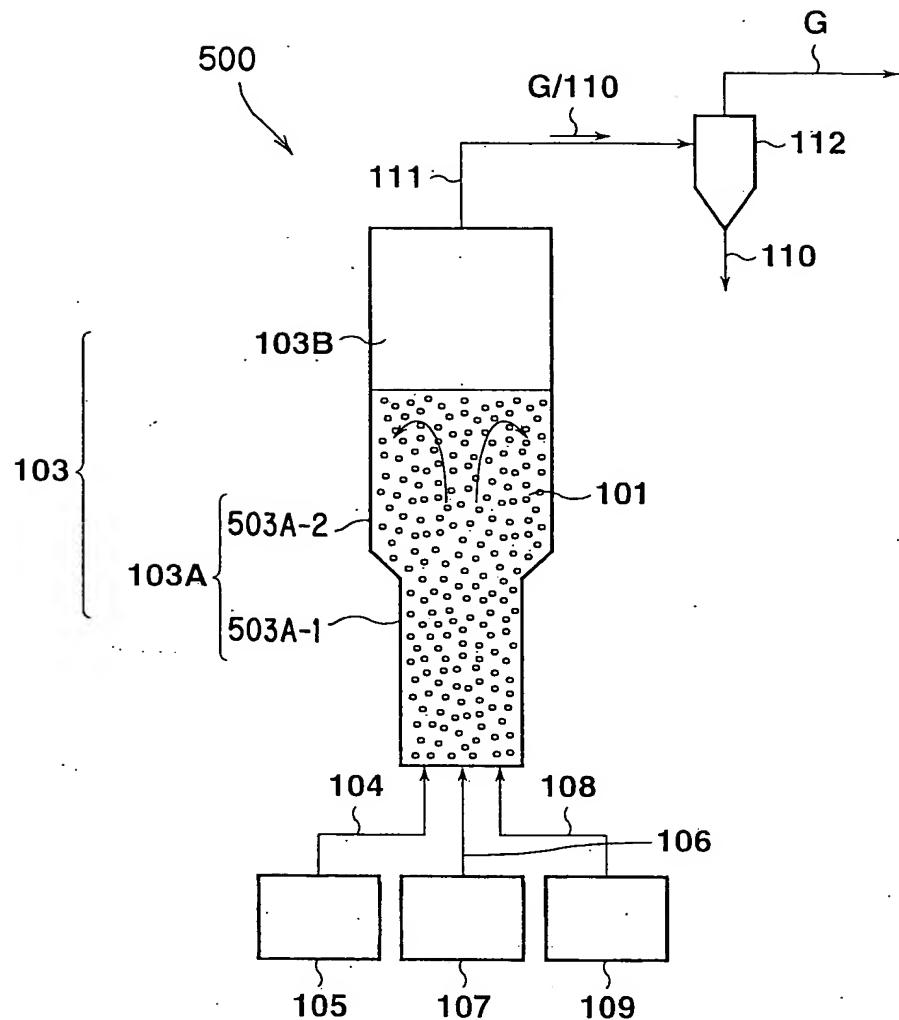


FIG. 43

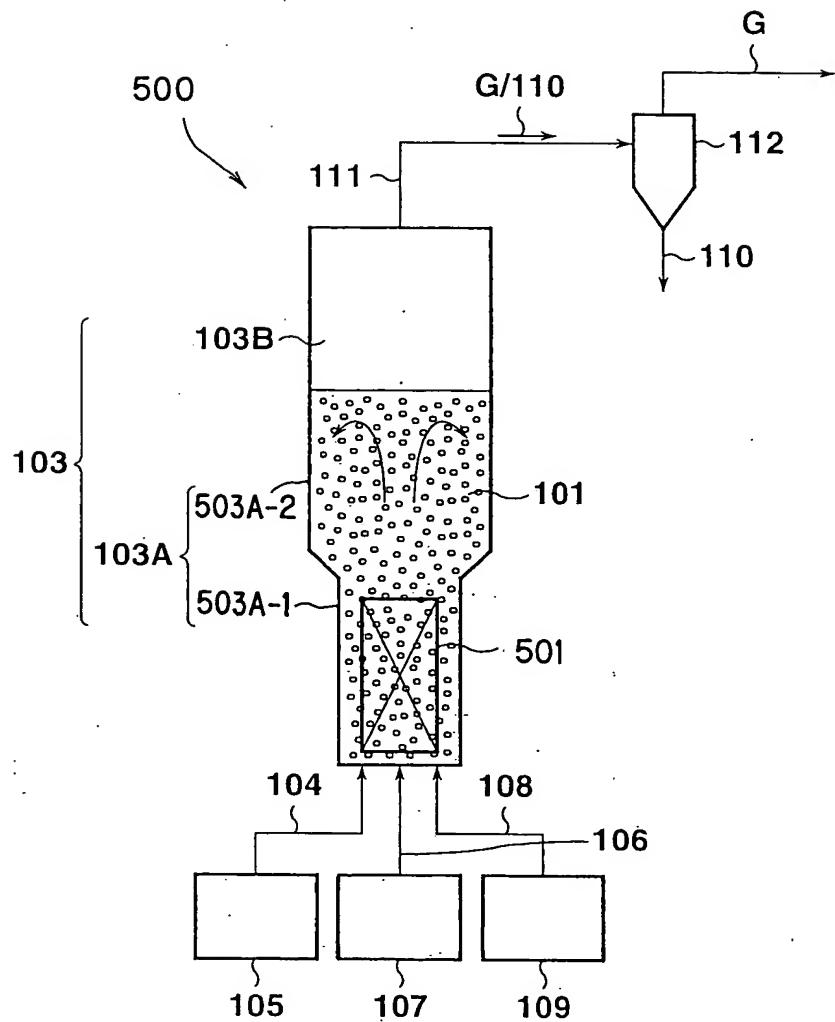


FIG. 44

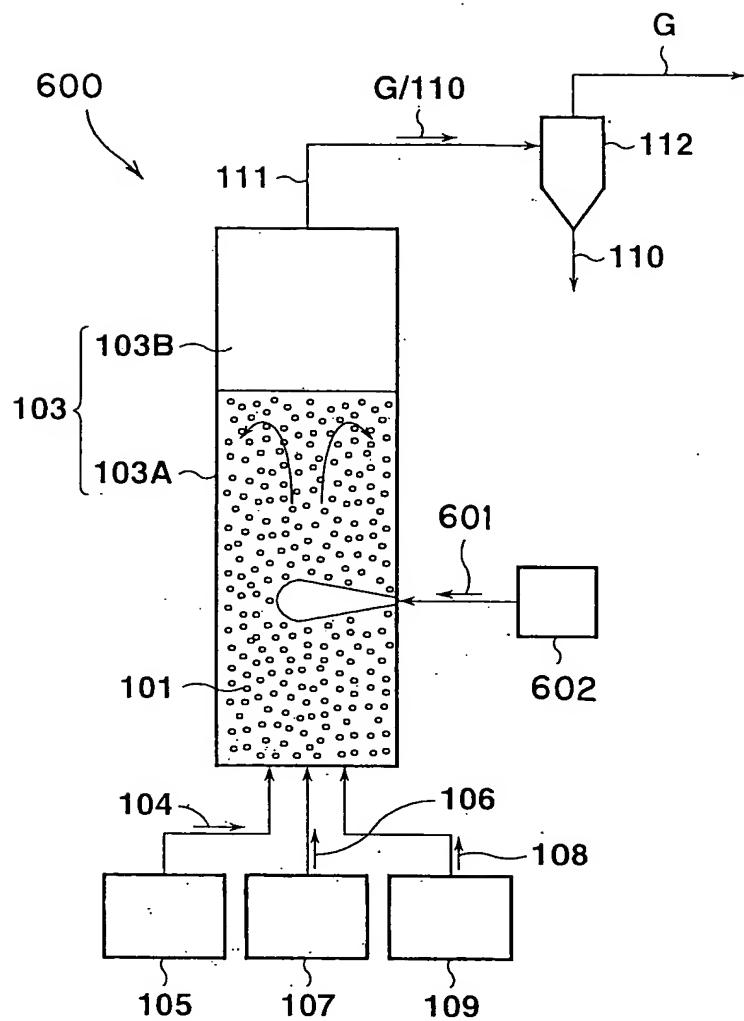
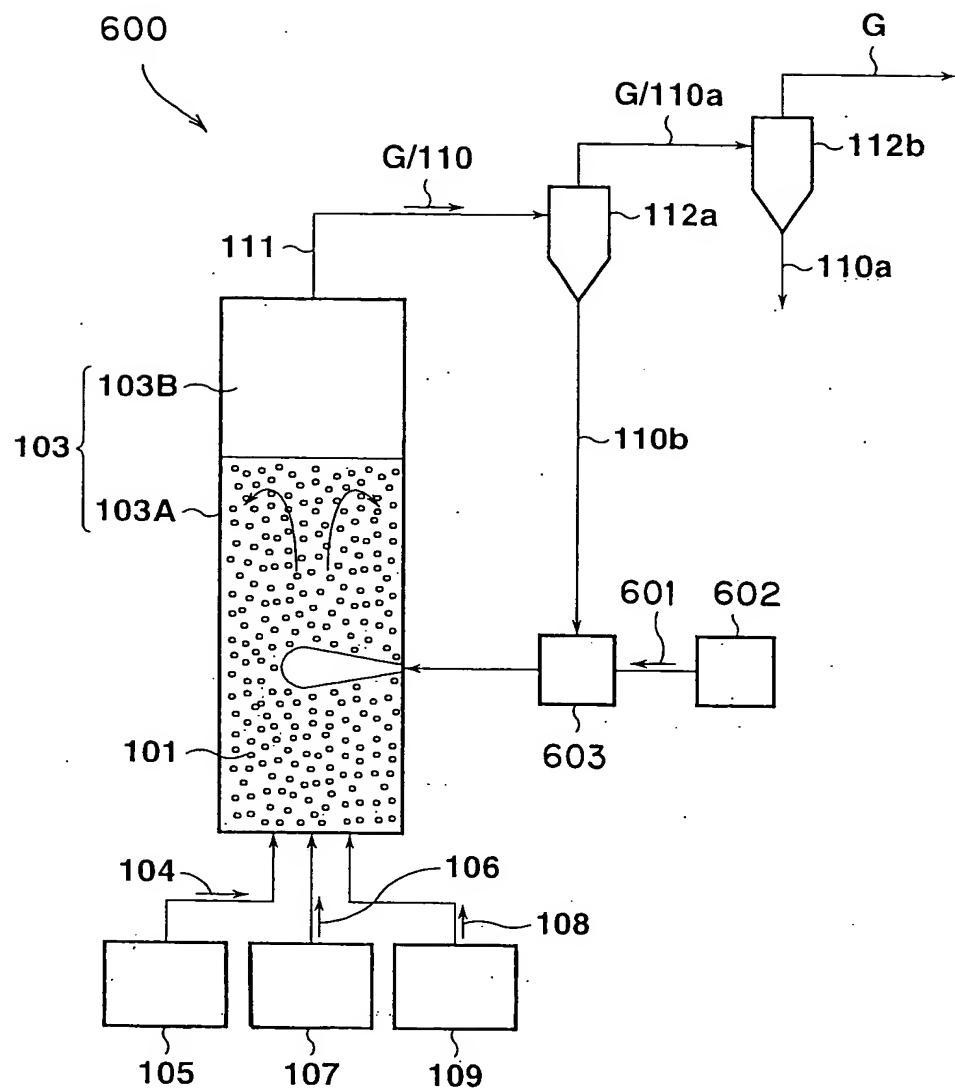


FIG. 45



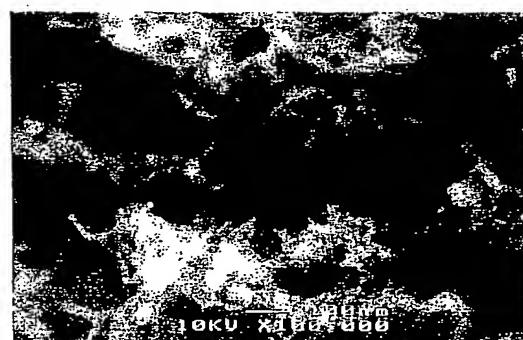
## FIG. 46

(a)



— 1μm      ×10000

(b)



— 1nm      ×100000

## FIG. 47

(a)



— 1μm      ×10000

(b)



— 100nm      ×50000

10/537151

*FIG. 48*

( a )



— 1 $\mu$ m       $\times 10000$

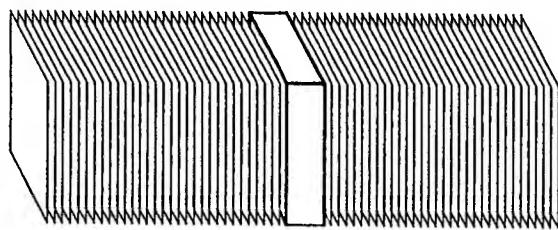
( b )



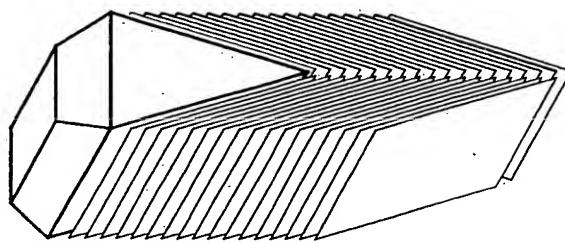
— 100nm       $\times 100000$

FIG. 49

(a)



(b)



(c)

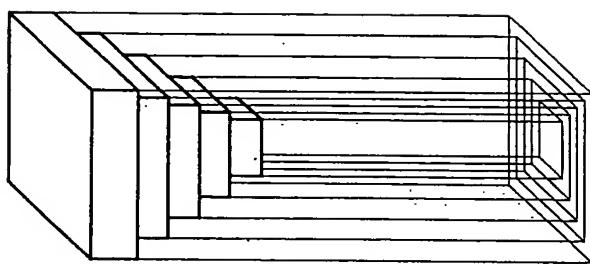


FIG. 50

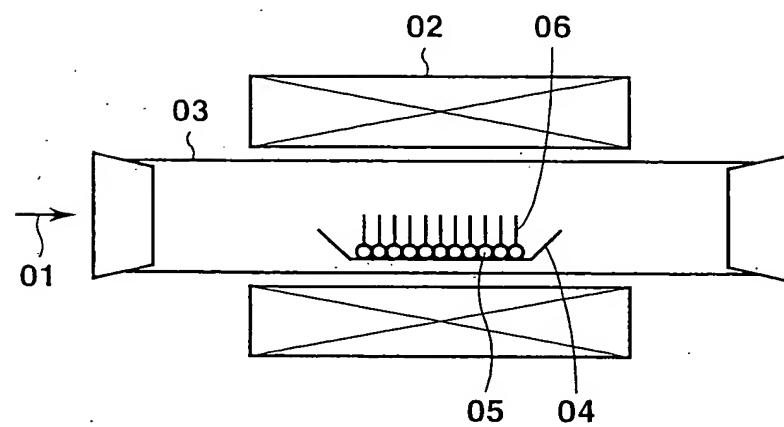
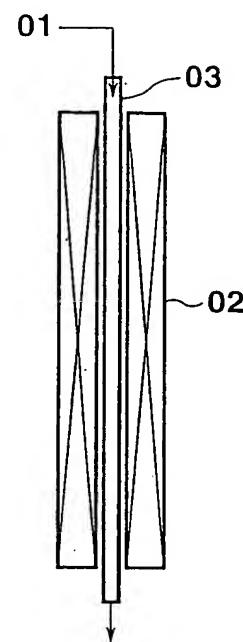


FIG. 51



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